Grantec Engineering Consultants Inc.

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"Offshore Structures Standards:
Canadian initiatives accelerate toward ISO"

Author: Richard Grant

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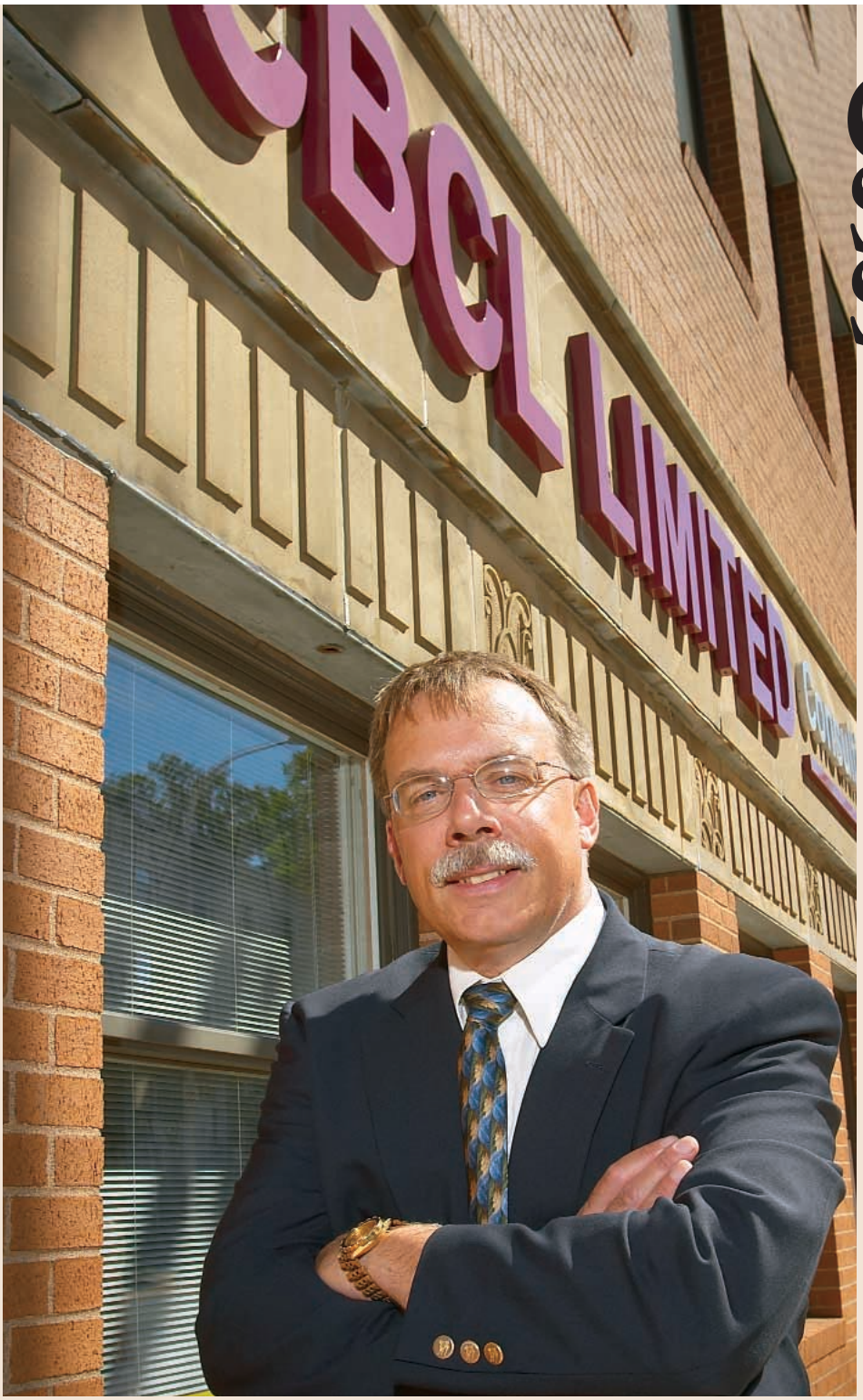
For information on this article contact:

Richard M. Grant, M.Eng., P.Eng.
info@grantec.ca

Grantec Engineering Consultants Inc.
Hammonds Plains, Nova Scotia, Canada

www.grantec.ca



Richard Grant, M.Eng., P.Eng, a Senior Analyst with CBCL Limited in Halifax, is a Member of the Executive Committee of the Strategic Steering Committee on Offshore Structures (SSCOS) and a Founding Member of the Canadian Advisory Committee (CAC) on Offshore Structures. In 2003, Grant was a recipient of the CSA Award of Merit for his leadership and guidance in the advancement of both the CSA and ISO standards.

Offshore Structures Standards

Canadian initiatives accelerate toward ISO

BY RICHARD GRANT

As reported in the June 2003 edition of *Ocean Resources* ("Offshore Structures Standards, The Road to Reliability" by Robin England), initiatives to harmonize Canada's offshore structures standards with the new standards being developed under the International Standards Organization (ISO) are well underway. This comes as a result of tremendous efforts under the umbrellas of the Standards Council of Canada (SCC) and the Canadian Standards Association (CSA), with participation from the various stakeholders (including industry, fabricators, consultants, academics, regulators, etc.).

In 2000, a Strategic Steering Committee on Onshore Structures (SSCOS) was established by CSA, with Greg Lever as the Chair, to assess the path forward for Canada's offshore structures standards. It had been recognized by that time that the CSA standards were not being widely used for offshore projects in Canada, nor were they being effectively maintained and updated. It was also recognized, as a result of efforts of the Canadian Advisory Committee (CAC) established under the Standards Council of Canada (SCC) in 1997 with Graham Bagnell as the Chair, that ISO had embarked on an aggressive program to develop international standards for offshore structures.

With the assistance and recommendations from two Technical Committees established under the SSCOS, and with collaboration from the CAC, the preferred path forward was deemed to be that of ISO. However, it was recognized that an update of the existing CSA offshore

structures standards was required as an interim measure until the new ISO standards are published (the majority of the ISO structures standards are scheduled to be published in 2005).

Considerable progress has been made since the SSCOS was established. The two Technical Committees were charged with the review and update of the existing CSA Offshore Structures Standards (S471 through S475). This review and update is now, for all intents and purposes, complete.

All Photos Credit: Cullen, Hon. Lord. The Public Inquiry into the Piper Alpha Disaster. London: HMSO, 1990.

The 1988 Piper Alpha tragedy forced huge changes in the North Sea inspection and saftey regime.

The updated S475 standard on Sea Operations was published earlier this year, with the remainder of the CSA standards (S471 through S474) to be published in early 2004. Areas where the CSA standards have been substantially updated include: changes to load and resistance factors; new guidance on ice loading; concrete requirements; and new guidance on fire and explosion control and mitigation.

In the area of fire and explosion safety, it was recognized that significant advancements were made within the North Sea community as a result of learnings from the Piper Alpha tragedy (1988). Guidance reflecting these advancements has been incorporated into the updated CSA standard, bringing Canadian guidance for offshore fire and explosion safety in-line with that of the North Sea. It is important to note that a similar effort to advance safety in the area of fire and explosion safety is in progress in the United States through the American Petroleum Institute (API). Efforts under ISO are drawing upon the results of these various initiatives.

With efforts to update the CSA standards nearing completion, it was recognized that Canada's focus needed to shift to a higher level of participation in the development of the ISO standards. As such, in March of this year, an ISO Harmonization Workshop was held in St. John's to help move the efforts forward and to develop a "roadmap" for the harmonization of the Canadian Standards with those of ISO. Primary outcomes from this workshop included: the acceptance of the proposal to merge the CSA Technical Committees with the CAC; recommendations for the structure of the new "merged" CAC; timelines for implementation of the new CAC; leadership structure of the new CAC; and recommendations on how to best influence the ISO standards.

Many of the recommendations of the workshop have now been implemented. The CSA Technical Committees have been merged with the new CAC. Ahmed Ewida of Petro-Canada has been selected as the Chair of this new CAC, with Graham Bagnell providing guidance as the Past-Chair. With this merger accomplished, Canada's efforts will focus on influencing the development of the new ISO standards, with the intent to have them adopted as the National Standards of Canada.

It is important to note that Canada has been contributing to the development of the ISO offshore structures standards since the CAC was established in 1997. Both the CAC and CSA Technical Committees have been providing comments on the standards, with many of the comments reflected in the ISO standards. Several Canadian experts are participating directly on ISO Working Groups and Technical Core Groups providing input directly into the development of these standards. As well, Canada has taken the leadership role as the convenor responsible for the development of the new ISO Arctic Offshore Structure Standard. This opportunity was recognized and subsequently recommended to the SSCOS by Bagnell. The recommendation was accepted by the SSCOS, a case was made to ISO and subsequently accepted in 2002. Canada is now charged with leading the development of this important ISO standard (due to be published in 2008).

Canada is indeed well on the way to ISO. Additional information on the ISO Offshore Structures program is available at the ISO website: http://sc7.tc67.net/.

ISO — International Standards Organization
SCC — Standards Council of Canada
CSA — Canadian Standards Association
SSCOS — Strategic Steering Committee on Onshore Structures
CAC — Canadian Advisory Committee
SCC — Standards Council of Canada
API — American Petroleum Institute