Hong Kong Institute of Steel Construction

香港鋼結構學會

HKISC

Jointing, Welding & Cold-Formed Steel Group

Second announcement

HALF-DAY SEMINAR
SUPER HIGH QUALITY STEEL IN BUILDING CONSTRUCTION

Organized by

Jointing, Welding and Cold-Formed Steel Group, Hong Kong Institute of Steel Construction

Supported by

Joint Structural Division, Hong Kong Institution of Engineers
Department of Civil and Structural Engineering, Hong Kong Polytechnic University
Department of Civil Engineering, The University of Hong Kong

Organizing Sponsors

K.Y.H. Steel Company Limited
JFE Steel Corporation

Date:	25 May 2012 (Friday afternoon)
Venue:	Room N002, Hong Kong Polytechnic University, Hunghom
Time:	1:30pm for registration ; 2:00pm to 6:00pm for Seminar

Scope and Objectives

It has well been recognized in the local building construction industry that Class 1 steel should comply with one of the five regional reference material standards with respect to the four essential requirements on strength, resistance to brittle fracture, ductility and chemical composition, and be produced from a manufacturer with an acceptable Quality Assurance system. By this, Class 1 steel would therefore be accepted by the Building Authority without additional test.

A manufacturer with an acceptable Quality Assurance system is simply regarded that its production achieves the required quality assurance standards as stipulated in ISO 9001.

From time to time, disputes invariably arise due to fluctuations in the mechanical properties as well as inconsistent dimensional deviations in workmanship of steel products.

Although these fluctuations and deviations generally comply with the requirements of the reference material standards, they would somehow adversely affect the built quality of steel structures. Sometimes, the disputes may end up with additional tests to resolve the arguments; and occasionally, the problematic batch of steel product would be rejected. This would bring about significant adverse implications to both the construction program and the financial stability of the project.

While the primary issue in minimizing the fluctuations and deviations appears unrelated to various reference material standards at large, it may hinge on the unique quality assurance system undertaken by the steel product manufacturer. Notwithstanding the adopted quality assurance system, research and development strategy undertaken are also essential for a steel manufacturer to produce high-end steel products.

Firstly, an overview will be presented on the JFE's shaped steel products, together with its manufacturing process and facilities. Then, it will focus on its quality control method, especially on its mechanical property, inspection method of dimension and shape, and on its identification control method. It will also introduce JFE's customer satisfaction activities in order to meet customer's requirement, and its unique approach to improve quality and manufacturing technology.

Amongst the products are TMCP steel plates manufactured by thermo-mechanical controlled rolling method and are widely used in Japan for building frames such as welded BOX section, welded H-girder etc. The plates became popular after the KOBE earthquake due to their advantages in design strength and fabrication over the conventional steel plates. This presentation will focus on the Manufacturing Process of TMCP Steel Plates, their specifications in various standards, advantage in design strength and fabrication, and their applications.

In addition, the features and merits of Wide Type Steel Sheet Pile, which has effective width of 600mm as compared to the conventional 400mm product, are to be focused. Advantages in section performance per weight, drive-ability etc. are described. The second topic would focus on the features of the Leak-Proof Sheet Pile, namely the J-Pocket Pile (JPP). This product enables high performance in water sealing ability and is mainly applied in structures required for high impermeability. It has a "pocket" at the clipping ends, in which impermeable material can be easily installed. Major applications are also introduced.

Besides, the characteristics of Concrete Filled Tubular (CFT) structure would also be discussed. The presentation would display the merits of CFT structure both in structural performance and fire resistance performance. Steel-concrete composite structure is generally suitable for columns with axial compression and bending, because the concrete is fitted for resisting axial compression load while the steel mainly resists bending. Since in-filled concrete of CFT column is fully encased, CFT columns have a higher structural performance than other composite structures. Although fire resistance design should be taken into account to construct steel structure, CFT columns out-perform pure steel columns in fire resistance due to the thermal capacity of in-filled concrete.

By looking into the quality assurance system as well as the research and development aspects, a model steel manufacturer qualified to produce high-end steel products is proposed. Undoubtedly, Japanese steel manufacturer is universally recognized as one of the model steel manufacturers who is capable of adopting super high quality assurance system as well as undertaking persistent research and development program in the advancement of manufacturing steel products.

The seminar is tailor-made for structural engineers, practitioners and project managers in private sector, government authorities and contractors working in steel construction industry to keep abreast of the latest technology in steel manufacturing production. It will be scheduled on 25 May 2012 afternoon. Speakers will comprise several Japanese experts.

Lecture notes and CPD certificate will be issued to the participants. Please make your reservation at your convenience.

Official Language

English will be the official language. The registration fees of the seminar are given as follows: -

Programme	HKISC member	HKIE/HKIA/HKIS members	Others
Half-day seminar	$ 500	$ 600	$ 800

Biodata of Speakers

Mitsuo Ichinose, General Manager, JFE Steel Corporation
(Construction Materials & Business Development Dept., Construction Materials & Service Center)

- Mar. 1981, Graduated from Osaka Univ., Faculty of Engineering
- Mar. 1993, Completed Osaka Univ., Master's course of Graduate School of Engineering
- Apr. 1983 - , Kawasaki Steel Corporation, Engineering & Construction Division
- Apr. 2003 - , JFE Steel Corporation, West Japan Works, Civil Engineering & Construction Sec.
- Apr. 2011 - , JFE Steel Corporation, Construction Materials & Business Development Dept.

Hiroyuki Okubo, Deputy General Manager, JFE Steel Corporation
(Shapes & Spiral Tubes Business Planning Department)

- Mar. 1987, Graduated from Osaka Univ., Faculty of Engineering
- Mar. 1989, Completed Osaka Univ., Master's course of Graduate School of Engineering
- Apr. 1989, Kawasaki Steel Corporation, Shape & Bar Rolling Dept.
- Apr. 2006, JFE Steel Corporation, Products Design & Quality Control for Steel Products Dept.
- Apr. 2012, JFE Steel Corporation, Shapes & Spiral Tubes Business Planning Dept.

Koji Oki, Manager, JFE Steel Corporation
(Construction Materials & Business Development Dept., Construction Materials & Service Center)

- Mar. 1995, Graduated from Waseda Univ.
- Aug. 1997, Completed Cornell Univ., Master's course of School of Engineering
- Oct. 1997 - Mar. 2003, NKK corporation
- Apr. 2003 - Mar. 2007, JFE R&D Corporation
- Apr. 2007 - , JFE Steel Corporation, Construction Materials & Business Development Dept.

Takayuki Nanba, Senior Researcher, JFE Steel Corporation
(Steel Research Laboratory, Civil Engineering Research Department)

- Mar. 1995, Graduated from Kyoto Univ., Faculty of Engineering
- Mar. 1997, Completed Kyoto Univ., Master's course of Graduate School of Engineering
- Apr. 1997 - Mar. 2003, NKK corporation
- Apr. 2003 - Mar. 2008, JFE R&D Corporation
- Apr. 2009 - , JFE Steel Corporation, Civil Engineering Research Dept.

Hidenori Kusanagi, Deputy General Manager, JFE Steel Corporation
(Construction Materials & Business Development Dept., Construction Materials & Service Center)

- Mar. 1989, Graduated from Kyoto Univ., Faculty of Engineering
- Mar. 1991, Completed Kyoto Univ., Master's course of Graduate School of Engineering
- Apr. 1991 - , Kawasaki Steel Corporation, Engineering Division, Civil Engineering Dept.
- Jul. 1998 - , Kawasaki Steel Corporation, Construction Division, Overseas Construction Dept.
- Apr. 2003 - , JFE Civil Corporation, Overseas Construction Dept.
- Jul. 2004 -, JFE Steel Corporation, East Japan Works, Civil Engineering & Construction Sec.
- Oct. 2010 - , JFE Steel Corporation, Construction Materials & Business Development Dept.

Should you have further query, please do not hesitate to contact Mr. Sam CHAN at samchan@hkisc.org.

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REGISTRATION FORM
(To be replied on or before 22 May 2012)

Please follow the 2-step registration procedure:

1. Fax the completed registration form to *Mr Sam CHAN* (Fax: 852-2334 6389) for preliminary registration.
2. Post the completed registration form within 7 days together with a crossed cheque payable to **Hong Kong Institute of Steel Construction Limited** to *Mr Sam CHAN*, at:

The Hong Kong Institute of Steel Construction
c/o Room TU743, Department of Civil and Structural Engineering,
The Hong Kong Polytechnic University, Hunghom, Kowloon, Hong Kong, China.

on or before the deadline.

To: Mr Sam CHAN **Fax: 852- 2334 6389**

Personal Details:

Title	Name in full (Block Letter)	Name of Company	Tel.	Fax	E-mail address	Institution/ Membership No.
1.						
2.						
3.						
4.						
5.						

Postal Address
(for official receipt): _____

I enclose a crossed cheque (no._____) with a sum of HK$ _____for the registration fee of the captioned Seminar.

Signature: _____ Date: _____

CPD Certificate of Attendance *Please tick the appropriate box to indicate your choice:*

☐ Yes**,** I/ we would like to have CPD certificate(s). ☐ Not request for certificate(s).

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Seminar programme on 25.05.2012 (Friday pm)	
Time	**Programme**
1:30-1:50pm	Registration
1:50-2:00pm	Welcome address *Ir Prof S L Chan – President of HKISC*
2:00-2:15pm	Introduction of a Japanese steel company and its manufacturing plant and research laboratory *Mr. Mitsuo Ichinose, General Manager of JFE Steel Corporation*
2:15-3:00pm	Quality control activities in shape mill *Mr. Hiroyuki Okubo, Deputy General Manager of JFE Steel Corporation*
3:00-3:50pm	High quality TMCP steel plates for buildings *Mr. Koji Oki, Manager of JFE Steel Corporation*
3:50-4:10pm	***Tea break***
4:10-4:55pm	Concrete filled steel tube (CFT) structure *Mr. Takayuki Nanba, Senior Researcher of JFE Steel Corporation*
4:55-5:40pm	Wide type steel sheet pile & Leak-proof sheet pile (J-Pocket Pile) *Mr. Hidenori Kusanagi, Deputy General Manger of JFE Steel Corporation*
5:40-5:50pm	Q&A forum
5:50-6:00pm	Concluding remarks & collection of CPD certificates