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Building Engineering Division
Fax: 63257482
Tel: 63257480

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President
Institution of Engineers, Singapore
70, Bukit Tinggi Road
Singapore 289758

President
Association of Consulting Engineers, Singapore
70, Palmer Road #04-06
Palmer House
Singapore 079427

Dear Sirs

**BCA /IES /ACES ADVISORY NOTE 2/03
ACCREDITED STEEL FABRICATORS AND INSPECTION & TESTING
AGENCY**

BCA has come across a number of projects with poor quality welds in structural steel. These defects if not detected and rectified early could cause the steel structures to fail or collapse. One very important aspect in ensuring quality steel construction is the careful selection of steel fabricators. A recent survey on steel fabricators showed that there are great disparities in the capability, resources and quality of steelworks among the fabricators. Some of the smaller ones do not even have a covered yard to carry out their steel fabrications. Hence, careful selection of a good steel fabricator is a first step in avoiding poor quality steelworks.

2 A dialogue session was held jointly amongst BCA, IES, ACES and SSSS in July 2003 to discuss on the measures to improve the quality of structural steelworks. As discussed and agreed, the recommended guide and good practices on ensuring quality structural steel works are listed in Annex A – “BCA/IES/ACES ADVISORY NOTE 2/03 – ACCREDITED STEEL FABRICATORS AND INSPECTION & TESTING AGENCY”

3 I would appreciate if you could disseminate the contents of this advisory note to your members. Please contact our manager, Mr. Thung Sek Kwang at Tel 63257496 if you need any clarification. Thank you.

Yours faithfully

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ONG CHAN LENG
DIRECTOR
BUILDING ENGINEERING DIVISION
For COMMISSIONER OF BUILDING CONTROL

cc

Controller
Building Control Unit
Jurong Town Corporation
The JTC Summit
8 Jurong Town Hall Road
Singapore 609434

Manager
Development & Building Control Dept
Land Transport Authority
251, North Bridge Road
Singapore 179102

Deputy Director (Building & Infrastructure)
Defence Science & Technology Agency
Building & Infrastructure
1 Depot Road #12-05
Singapore 109679

Head
Plan Approval (C&S) Unit
Building Quality Department
Housing & Development Board
HDB Hub
480 Lorong 6 Toa Payoh
Singapore 310480

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ACCREDITED STEEL FABRICATORS AND INSPECTION & TESTING
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1) Accredited Steel Fabricator

The Structural Steel Fabricators Accreditation Scheme, managed by the Singapore Structural Steel Society (SSSS) is a good source for selection of a reliable fabricator. Professional Engineers are advised to specify, as part of the contract specifications that the steel fabricator employed should be accredited by the Singapore Structural Steel Society's Accreditation Scheme and in the category appropriate for the project. The details of the scheme and the list of accredited steel fabricators could be obtained at SSSS website at <http://www.ssss.org.sg>.

2) Quality Control During Fabrication

- a) an experienced site supervisor should be appointed to assist the PE in supervising the fabrication of the structural steelworks.
- b) steel fabricator to submit quality plan and shop drawings to the PE for endorsement.
- c) welding works are to be carried out by qualified welders.
- d) PE to direct the builder/ITA to arrange for samples of materials and welds to be tested.

3) Inspection and Testing Agency (ITA)

For large projects with steel structures, an independent Inspection and Testing Agency (ITA) should be appointed to:

- a) review and accept the welding procedure specifications
- b) check on the joints fit-up, size, dimensions, material quality of the steel members
- c) conduct inspections prior to welding, during welding and after welding
- d) conduct post welding tests on the welds
- e) check on bolted connections