

Supply Chain Environmental Requirements of Subcontractors

供應鏈中對分判商的環保要求

Presented by Iain Wink

Topics 題目

- Background 背景
- Environmental expectations 環保期望
- Best practice guidance 良好作業指引
- Conclusions 結綸





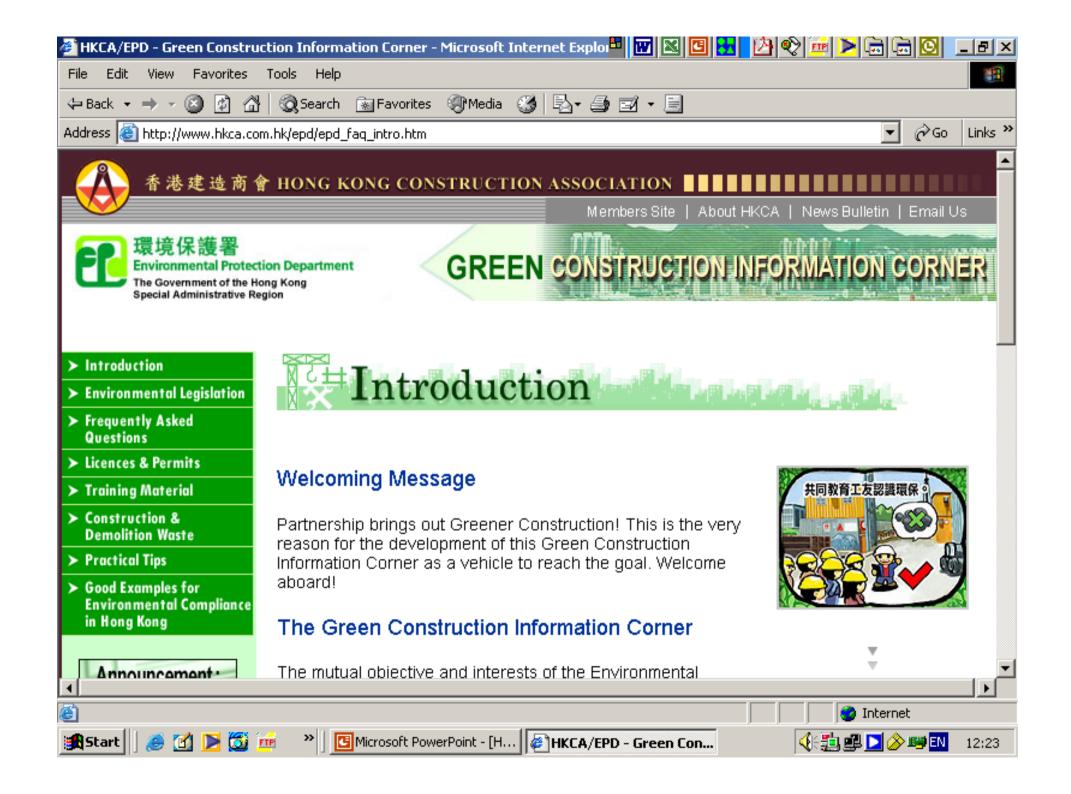
Background 背景

1. Hong Kong Construction Association

香港建造商會

- 325 members 325 成員
- voice of the industry 業界聲音
- 2. HKCA Environmental Committee in partnership with the EPD 建造商會環保分會與環保署之伙伴合作





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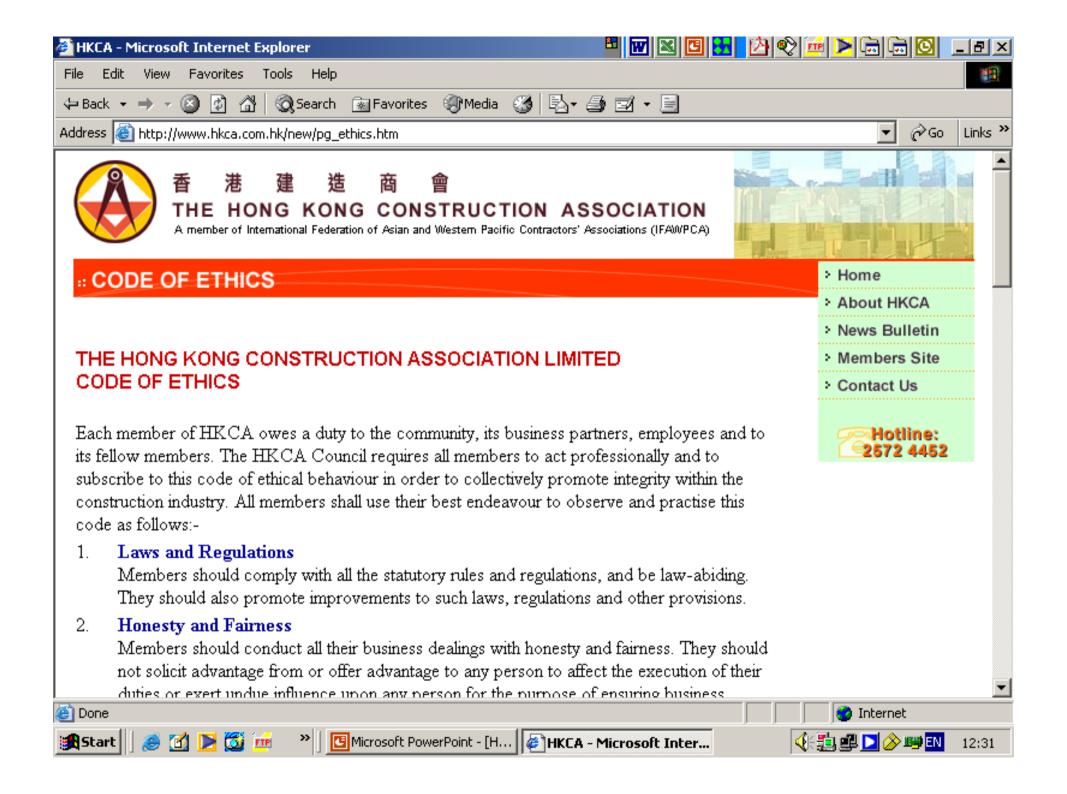
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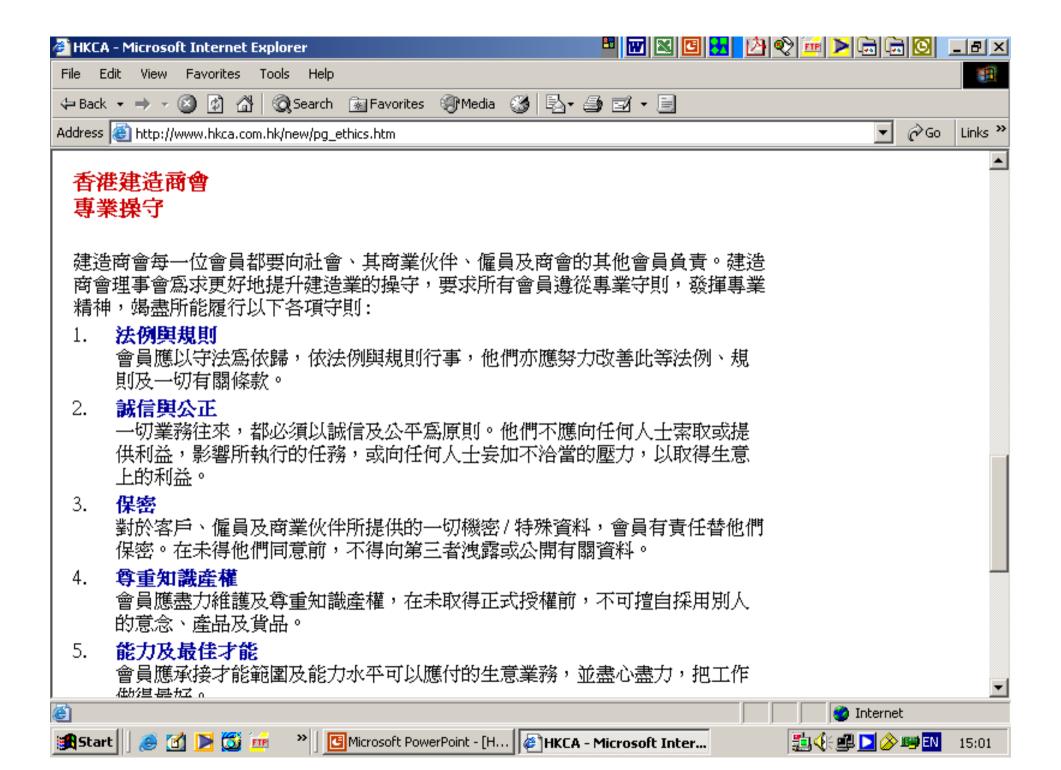
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- 3. Values and Codes of Ethical behaviour 價值與行 爲守則
 - Relationships with consultants, subcontractors and suppliers 與顧問公司,分判商,供應商的關係
 - Laws and Regulations 法例與法規
 - Community and Environment 社區及環境

















Environment inputs in supply chain cycle

Design







Operation 运营











Construction



Environmental expectations in the supply chain 在供應鏈中的環保期望

- Scale of involvement 投入程度
- Cumulative impacts 累積的影响
- Shared values 共同價值
- Regulatory Compliance 遵守法規





Minimum Environmental Controls expected

預期對環境最低的影響



Dust 粉塵



Chemicals 化學品泄漏



Fumes 廢氣



Noise 噪音

Minimum Environmental Controls expected

預期對環境最低的影響





Pests 虫鼠



Solid Wastes 固體廢物



Wastewater 廢水





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- Contractual compliance 合約要求
 - Pollution control solutions汚染控制方案





Provision of Pollution Control Facilities

提供控制污染設備





Wastewater Treatment System 污水處理設備

Wheel Washing Facility 自動洗車設備



Provision of Chemical Spillage Control Facilities 提供控制化學品泄漏設備



Oil Spillage Kit 油污處理設備





Chemical Waste Store 化學廢物倉

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- Other requirements 其他要求
 - Policies and systems 政策與系統





Provision of Environmentally Friendly Plant

提供環保機械設備





Quiet Breaker with Water Spray



設置灑水系統的靜音型破碎機

Provision of Welfare / Hygiene Facilities and Services 提供環境衛生設備及服務



Waste Bins 垃圾回收箱





Chemical Toilets 化學廁所

Precast Building Materials 預制建築物料



Precast Façade 預制件



Precast Bay Window 預制窗



Precast Bridge Segment 預制橋身



Noise Mitigation (Operational)室外噪音消滅



Noise Barrier 隔音屏障 & Enclosure 隔音罩

Noise Barrier 隔音屏障





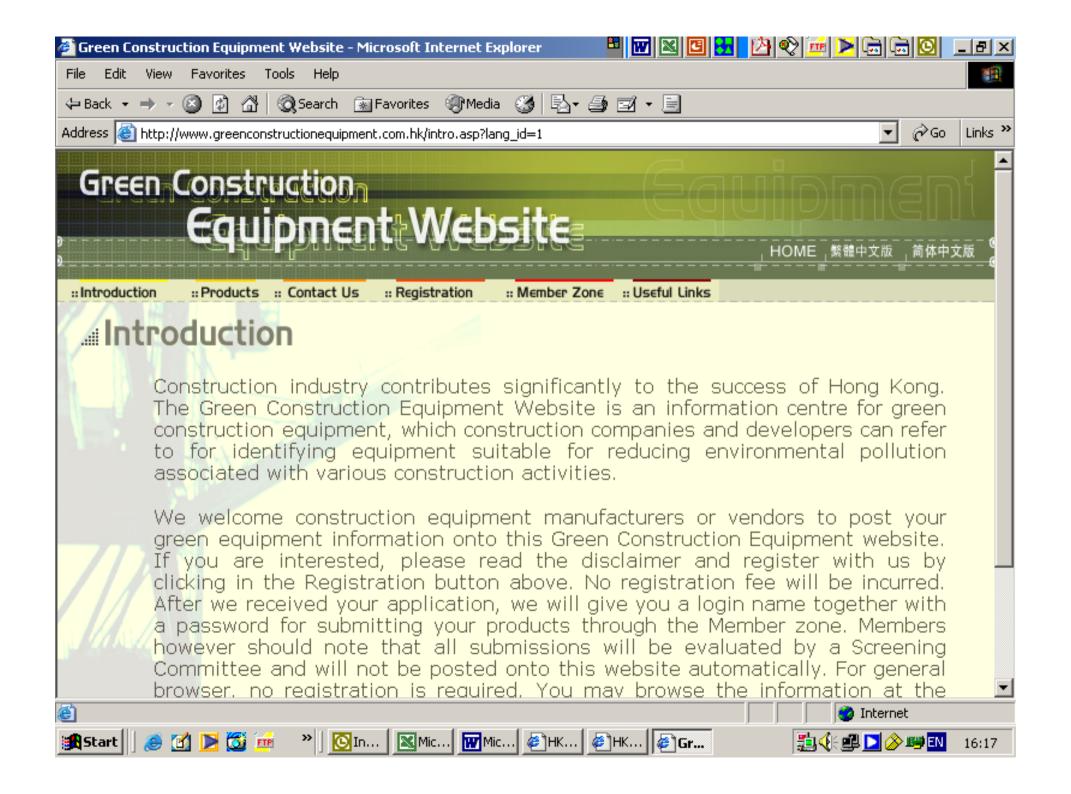
Reusable Formwork 可再用模板





Reusable Steel Column Mould 可再用鋼模

Reusable Self-climbing Hydraulic Formwork 安全攀緣屏



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 - Policies and systems 政策與系統
- Main Contractor position





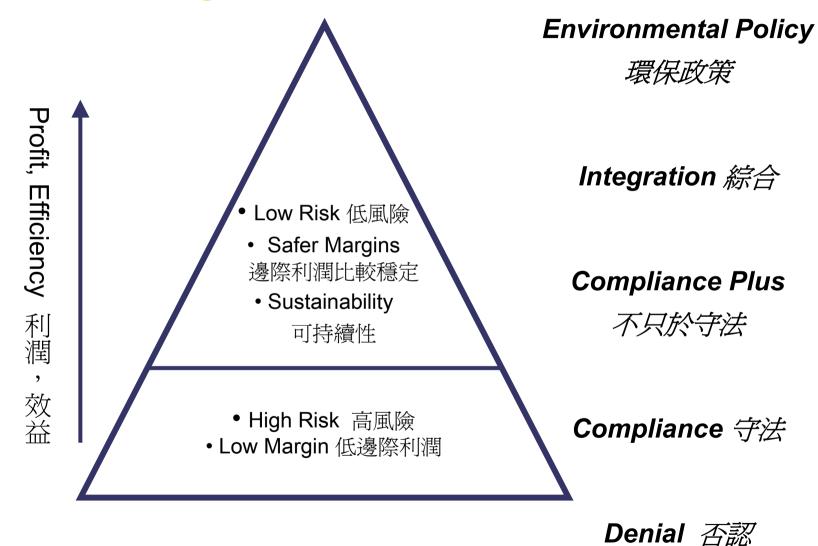
Main Contractors position

總承建商角式

- Duties and obligations 職責和責任
- Design 設計
- Planning and methods 計劃與工作方法
- Selection of suppliers and subcontractors 選擇供應商 與分判商
- Overall environmental management system 整体環境 管理系統
- Control and enforcement
 控制和執行
- Leadership and example
 領導和以身作則



Balancing risk 平衡風險





Contaminated Land Risk Example 例子:受污染土地

- Legacy of industrial uses, processes and waste disposal 工業産品加工過程中產生的遺棄物和廢棄物
- Global problem of contaminated land and waters
 土地及水汚染是全球性問題
- Pressure for land for development 土地开发的压力
- Environmental standards & public expectations 环境标准及公眾期望





Risks: 危機

- Pollution to surrounding environment 周圍環境的汚染
- Health risks to land occupiers & adjoining occupants 危害土地擁有者及鄰社的健康
- Pollution of underground & surface water supplies 地下水及地面水供應的污染
- Corrosion or damage to structures 建築物結構的侵蝕 或損害
- Creation of hazardous environments 製造有害的環境





Contractors treatment solutions

承建商處理方案

- Bioremediation 生物修復

- Soil washing 土地清洗
- Vapour extraction 蒸汽萃取
- Stabilisation / solidification 穩定/凝固處理
- immobilisation 固定
- cement, clays, liners, polymers 水泥、鬆土、襯墊 } 聚合體







Best Practice Guidance

良好作業指引

Tender Stage 投標階段

- Ensure awareness 保持環保意識
- Identify particular impacts and sensitivities 找出特定影响和敏感性
- Indicate relevant specifies 指出相關要求
- Require commitment 要有承諾





Best Practice Guidance

良好作業指引

Selection of Subcontractor 選擇分判商

- Approach on environmental grounds or Green Purchasing Policy 環保背景或綠色採購政策
- Environmental Policy & EMS in place 實行環保政策及 管理系統
- Methods to demonstrate commitment 以施工方法實踐承諾
- Previous performance 過往表現
- Equipment & other resources
 設備及其他資源





Best Practice Guidance 良好作業指引

Construction Planning & Execution 建造計劃及執行

- Site & environmental planning
 工地及環保計劃
- Impact identification & assessment
 影响檢定及評估
- Baseline information 背景資料
- Allocation of treatment facilities
 分配處理設施
- Training 訓練
- Enforcement 落實執行





Conclusions 結論

- HKCA commitment 建造商會承諾
- Potential for improvement 潛在可以改善之處
- Whole supply chain influence 影响整個供應鏈
- •Lots of help at hand現有很多支援
- Actions 行動
 - Leadership 領導
 - Partnering 伙伴
 - Research 研究
 - Procurement process change改變採購過程



