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		Rev: 01
		August 2013
KLM Technology Group #03-12 Block Aronia, Jalan Sri Perkasa 2 Taman Tampoi Utama 81200 Johor Bahru Malaysia	PROJECT DESIGN CONTROL PROCEDURE (PROJECT STANDARDS AND SPECIFICATIONS)	

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1.0 PURPOSE AND SCOPE

- 1.1 To control and verify the product design, assign design function responsibilities, define technical interfaces, ensure that the design meets the client's specified requirements.
- 1.2 This procedure applies to the engineering, design calculations, drawings and specification preparation activities.

2.0 DEFINITIONS

- 2.1 EDCL - Engineering Department Circulation
- 2.2 AFC - Approved for Construction
- 2.3 STQ - Site Technical Query
- 2.4 DCN - Design Change Notice
- 2.5 HOE - Head Of Engineering Division
- 2.6 HOD - Head of Department/Division

3.0 INPUT AND OUTPUT

- 3.1 Input - Purchase Order, Checklist for Design Input, Client Specification & Data sheet, Statutory & regulatory requirements, meeting output, internal correspondences.
- 3.2 Output - AFC Documents

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4.0 PROCEDURE

4.1 Job Order and Work Scope Review

4.1.1 The HOE or designated Engineer to create an internal Job Number and obtain the Project Code from the Project Manager/HOD for the job order once there is confirmation from the Contract Department that the job order has been received.

4.1.2 HOE or designated Engineer to review the contract requirements, the work scope of the job order and establish the input for design process.

4.1.2.1 The input for the review may include but not limited to :

- a) Purchase Order
- b) Check list for Design Input
- c) Internal instruction/memo/other correspondences
- d) Output from clarification meeting/contract review stage
- e) Statutory and regulatory requirements
- f) Client's specification and data sheets
- g) Vendor data / engineering deliverables

4.2 Design Planning

4.2.1 The designated Engineer to establish a Design Quality Plan, resources and schedule planning for the job order.

4.2.1.1 The Design Quality Plan shall be approved by HOE

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- 4.2.2 The designated Engineer to prepare the relevant documents to manage and control the engineering design and drawing preparation activities :
- a) Engineering Department Job Control Sheet
 - b) Engineering Deliverables List
 - c) Planned Schedule
 - d) Organisation Chart and Job Responsibility Matrix

4.3 Design Calculations

- 4.3.1 The designated Engineer to obtain the document number from the Engineering Deliverables Numbering System or clients specified number, and records it in the Master Document Register.
- 4.3.2 The Engineer to use the Checklist for Design Input, Datasheet, specification or other relevant documents for preparation of design calculation.
- 4.3.3 The Engineer to prepare the Design Calculations.
- 4.3.4 The HOE or Lead Engineer to review and verify the Design Calculation to ensure compliance to all stated/relevant requirements.
- 4.3.4.1 If there is any comment on the Calculation, the designated Engineer to make necessary amendment and prepare a revised design calculation.
- 4.3.4.2 The records of the results of the review/verification and the action taken shall be maintained.