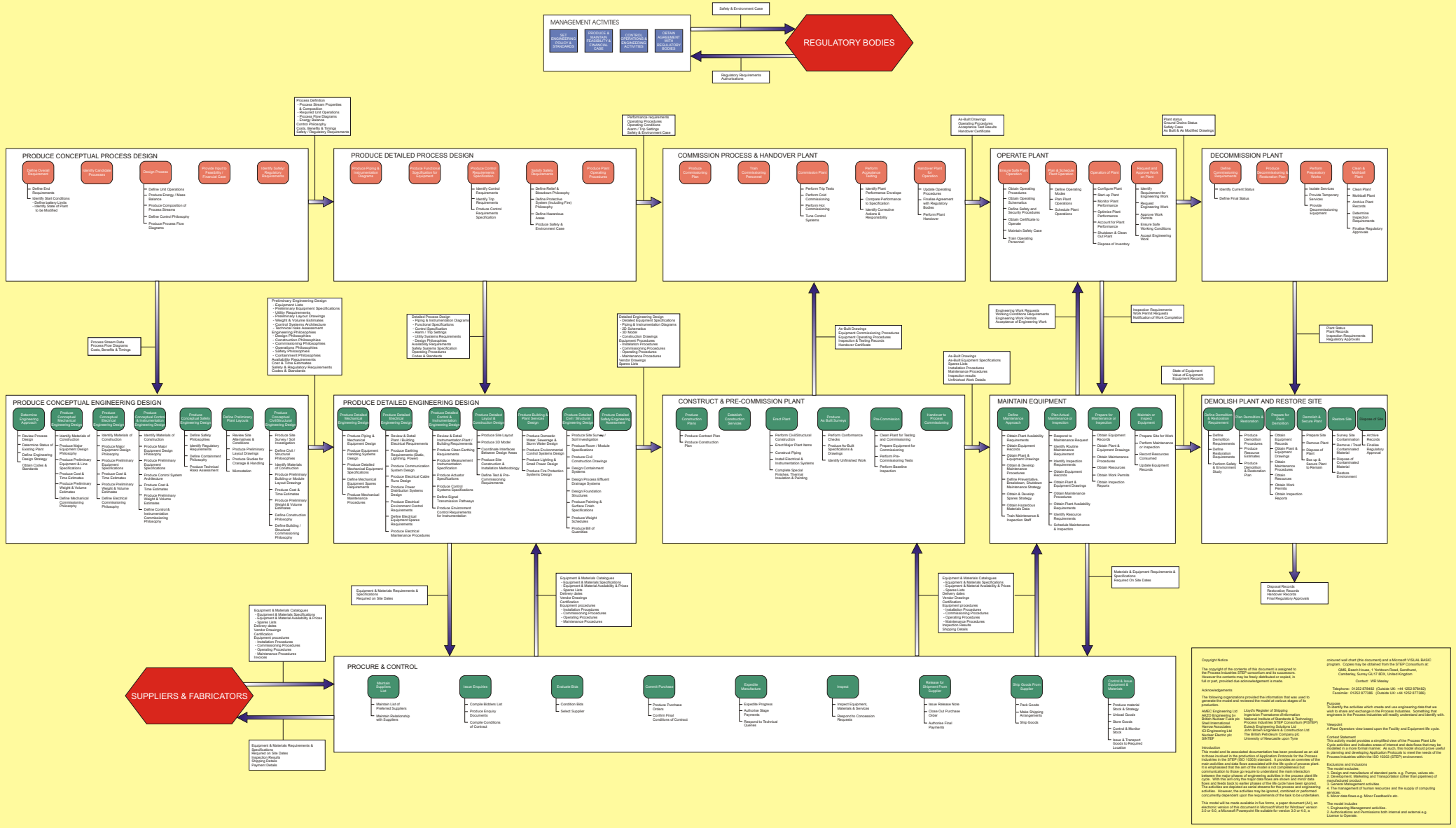
Process Plant Engineering Activity Model



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Acknowledgements

The following organizations provided the information that was used to generate the model and reviewed the model at various stages of its production.

AMEC Engineering Ltd
AKZO Engineering bv
Brown & Root Limited plc
Shell International Hamse Associates
ICI Engineering Ltd
Nuclear Electric plc
SINTEF

Lloyd's Register of Shipping
Ingenium Parametrics Information
Process Industries Standards & Technology
Process Industries STEP Consortium (PISTEP)
Eutech Engineering Solutions Ltd
John Brown Engineers & Construction Ltd
The British Petroleum Company plc
University of Newcastle upon Tyne

Introduction

This model and its associated documentation has been produced as an aid to those involved in the production of Application Protocols for the Process Industries in the STEP (ISO 10303) standard. It provides an overview of the main activities and data flows associated with the life cycle of process plant. The purpose of the model is to facilitate understanding and communication to those go require to understand the main interaction between the major phases of engineering activities in the process plant life cycle. With this aim only the major data flows are shown and minor data flows and feeds back to earlier phases of the life cycle have been ignored. The model is not prescriptive and does not show all possible engineering activities. However, the activities may be ignored, combined or performed concurrently dependent upon the requirements of the task to be undertaken.

This model will be made available in five forms, a paper document (A4), an electronic version of this document in Microsoft Word for Windows' version 3.0 or 6.0, a Microsoft Powerpoint file suitable for version 3.0 or 4.0, a coloured wall chart (this document) and a Microsoft VISUAL BASIC program. Copies may be obtained from the STEP Consortium at:

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Purpose

To identify the activities which create and use engineering data that we wish to share and exchange in the Process Industries. Something that engineers in the Process Industries will readily understand and identify with.

Viewpoint

A Plant Operators view based upon the Facility and Equipment life cycle.

Context Statement

This activity model provides a simplified view of the Process Plant Life Cycle activities and indicates areas of interest and data flows that may be considered for exchange between systems. It is intended to be particularly useful in planning and developing Application Protocols to meet the needs of the Process Industries within the ISO 10303 (STEP) environment.

Exclusions and Inclusions

Exclusions:

1. Design and manufacture of standard parts, e.g. Pumps, valves etc.
2. Development, Marketing and Transportation (other than pipelines) of manufactured product.
3. General Management activities.
4. Detailed management of human resources and the supply of computing services.
5. Minor data flows e.g. Minor Feedback's etc.

The model includes

1. Project management activities.
2. Authorisations and Permissions both internal and external e.g. License to Operate.