

# **PMO Consulting @ Chemfab Alalis Limited (CAL)**

Project : Plant 1 Up-gradation

Project Status, Finding and  
Recommendations



CHEMFAB ALKALIS LIMITED

# Briefing - Agenda

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- Objectives of Consulting
- Stakeholders
- Project Statistics
- Roles & Responsibilities
- Challenges & Concerns
- Best Practices
- Recommendations
- Findings
- Next Steps

# Objective of Consulting

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- To formalize a Project Management Body within the organization
- To find the gaps which is causing project delays
- Fill the gaps by introducing necessary processes and documentations
- Train project management staff on Microsoft Project Schedule (MSP)
- Help in finalizing the Project Schedule

# Stakeholders



# Attendees

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- **Sponsor of PMO Consulting**
  - Mr. VR Raguraman
- **Support for PMO Consulting logistics**
  - Mr. Hari Har Pandian
  - Mr. Chandan
  - Mr. Srinivasan
- **Active attendees**
  - Mr. N Kalyansundaram (Sr. VP)
  - Mr. Prakash (AGM – Projects)
  - Mr. Sagar (Management Trainee – Project),
  - Mr. Mohammed Imamuddeen (Management Trainee - Operations)
  - Mr. Jawahar (Management Trainee – CA - Finance)

# Attendees

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## ● Support Function Heads of Project \*

- Mr. V Subramaniam (Sr. Consultant Projects)
- Mr. M.Marichelvan (Sr.Manager – Electrical)
- Mr. N.Jayachandran (Sr.GM –Instrumentation)
- Mr. Venugopal (DGM–Mechanical)
- Mr. J.Nopalan (DGM–Process)
- Mr. Prakash (AGM–Projects)
- Mr. J.Sarfudeen (Sr.Manager–Materials)
- Mr. Swamidurai (AGM–EHS)
- Mr. Kannappan (Sr.Manager–HR)

\* Who are helping in finalizing WBS, Activities, Dependencies, Resources of their department related work in the project

# **Project - Statistics**

# Project Objective

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**Project I Phase** : Modernization and up-gradation of plant-1

**Project II Phase** :– CCU + Flaker



# Project Statistics

Phase		Actual	Original Plan	First Revision	Second Revision	Third Revision
Phase-1	Start Date	Aug'12	Jun'12	Sep'12		
	Finish Date		Jun'13	Sep'13	Dec'13	25-Jan-14
	Duration		12 Months	15 Months	18 Months	19 Months
	Cost		39 Cr	51.38 Cr		
Phase-2	Start Date	Dec'12	Sep'12			
	Finish Date		25-Dec-13	30-Mar-14		
	Duration		15 Months	18 Months		
	Cost		16 Cr	26 Cr		

# Key Milestones

Milestones	Date	Status	Forecasted Completion	Remarks
1 <sup>st</sup> Phase approval	22-Apr-13	Completed		
2nd phase IoF approval	27-Aug-13	Completed		
CEA approval for new Electrical Installations	31-Dec-13	In Progress		
Clarifier – Civil Work Completion	30-Oct-13	In Progress-Delayed	14/11/13	
Anolyte Pit - Civil Work Completion	30-Dec-13	In Progress-On Track		
Cl <sub>2</sub> /H <sub>2</sub> washing section- Civil Work Completion	20-Oct-13	In Progress-Delayed	20/11/13	Structural foundation completed. Equipment foundation in progress
Civil work completion in Brine Plant, Utilities etc	30-Oct-13	In Progress-Delayed	05/11/13	
Completion of structural works in Cl <sub>2</sub> /H <sub>2</sub> washing section	08-Nov-13	In Progress-Delayed	20/11/13	
Strengthening of existing pipe rack & Overhead tank structure	30-Nov-13	In Progress-On Track		

# Key Milestones

Milestones	Date	Status	Forecasted Completion	Remarks
Clarifier Shell Fabrication, Hydro testing, Rubber lining & Raker arm installation	15-Jan-14	In Progress- Delayed	15/02/14	
H2 linking equipment ordering & receipt	31-Dec-13	In Progress- On Track		
Pipe Rack Erection	30-Nov-13	In Progress- On Track		
Receipt of all equipments	15-Nov-13	In Progress- On Track		
Rectifier & Transformer Erection & Testing	15-Nov-13	In Progress		Erection completed
Mechanical and Electrical equipment erection	30-Nov-13	Not Started		
Erection of piping & Instrument completion	15-Jan-14	Not Started		
Pre commissioning	18-Jan-14	Not Started		
Commissioning	25-Jan-14	Not Started		

# Immediate Cause of Variation

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- **External**

- ❖ Delays is statutory approval
- ❖ Too much dependencies on contractors. They didn't provide enough resources as per the contracts signed.
- ❖ Delayed detailed engineering by consultants

- **Internal**

- ❖ The initial Project scope is finalized in September 2012 due to lack of clarity in scope
- ❖ Delayed order finalization
- ❖ Inefficient monitoring and controlling systems for project



# Root Cause of Variation

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- No detail estimation was done with respect to cost, schedule, resources before making commitment
- No impact analysis was done whenever revised new date is communicated to the stakeholders
- Requirements were not clear finalized time and cost without detail estimation and risk analysis
- Lack of ownership
- Poor project management skills

# Project Challenges

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- Monsoon
- Legal aspects
- Doing construction in running plant
- Enhanced safety regulations

# **Roles & Responsibilities**

# New Role Assignments

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- PMO Champion
  - Mr. N Kalyansundaram (Sr. VP)
- Project Manager (PM)\*
  - Mr. Prakash (AGM – Projects)
- Project Management Team Members (PM Team)\*
  - Mr. Sagar (Management Trainee – Project),
  - Mr. Mohammed Imamuddeen (Management Trainee - Operations)
  - Mr. Jawahar (Management Trainee – CA – Finance)
  - Mr. Pradeep (Management Trainee – CA – Finance)

\*PM, PM Team are project specific role and they exists only for the duration of Project : Plant 1 - Up-gradation Project



# New Role Assignments

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- Project Team Members
  - Mr. V. Subramanian
  - Mr. Nitin S Cowlagi
  - Mr. M.Marichelvan (Sr.Manager – Electrical)
  - Mr. N.Jayachandran (Sr.GM –Instrumentation)
  - Mr. Venugopal (DGM–Mechanical)
  - Mr. J.Nopalan (DGM–Process)
  - Mr. Prakash (AGM–Projects)
  - Mr. J.Sarfudeen (Sr.Manager–Materials)
  - Mr. Swamidurai (AGM–EHS)

\*It is project specific role. Various SME with various technical or business skills who are allocated for the project

# New Roles & Responsibilities

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- PMO Champion\*
  - Helps in defining, refining and approving Project Management processes, templates, checklist, forms, standards and guidelines etc.
  - Identifying training needs of project(s)
  - First level of escalation
  - Remove impediments which Project Management Team cannot address
  - Take reports from Project Manager (s)
  - Present project status to the board members

\*It is organization role and not specific to any project

# New Roles & Responsibilities

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- **Project Manager**

- Coordinate with functional heads in estimation, planning, monitoring and controlling
- Develop project schedule, cost estimates, risk register, communication plan, stakeholder register with the help of project management team and project team
- Ensure and Validate project team members are doing the work and updating the status on regular basis
- Resolving any impediments which team members cannot be resolve.
- Conduct daily standup meeting in Project Area\*
- Ensure various project chart\* are updated in project area
- Report project status and progress to PMO on regular basis
- Participate in Operation Standup meetings and share the progress

**\* Are discussed separately in this briefing reporting.**



# New Roles & Responsibilities

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- **Project Management Team**
  - Help project manager in full-filling all his responsibilities



# New Roles & Responsibilities

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- **Project Team Members**

- Help project manager in planning
- Complete the project work as per the plan
- Communicate any deviation, action plan to project manager and other team members
- Identify risks & develop their contingency and mitigation plan
- Update Microsoft Project Schedule as per the guidelines
- Accountable for their respective Project Schedule
- Coordinate with their departmental heads to get the resources and support
- Escalate project issues to Project Manager

# Challenges & Concerns

# Concerns

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- Most of the project management team member joined after project planning was over (Jun'12). So there is nobody to defend estimates and assumptions.
- Estimates with buffers are not available for each deliverables.

# Problems in Existing Scheduling

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- Duplicate items identified and planned
- No across project dependency defined
- No resource assignments
- Out of scope items included in project sub-schedules
- Cost of activities not traceable
- Resource database their allocation and availability is not traceable.
- Unnecessary constraints put almost for all activities on the project



# Project Schedule Status as on 1-Nov-13

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- Problem Solved
  - Has identified all deliverables and activities
  - Every department's WBS is complete with realistic durations
- Problem need to solved
  - Inter departmental dependencies yet need to be defined.
  - Resource assignment for each activity need to done
  - Remove all SNET (start not earlier than) constraints from all activities unless this is must for any activity and set logical dependencies. This is must to get the critical path of the project schedule.

# **Best Practices**

# Cost & Schedule Estimation

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- Estimate the every work item and related buffers separately and manage buffers separately
- To complete your cost estimates ask contractors to submit their cost (in case of T&M) or use your budgeted cost.
- To complete you schedule ask contractors to submit their planned schedule (with resources in case of T&M and without resources in case of FFP). Use this plan schedule and put this into your master plan. While doing this ensure that your target date do not shift.
- Items in your BoM, Activities of WBS, Resources of WBS must be in sync with each others



# Implement your processes

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- Define your planning and monitoring & controlling processes (I will help you in reviewing)
- Ensure people follow those processes
- Perform period audits to know the conformance (I will help you in auditing)
- Perform every day standup meeting in project. (If needed I can help you in formalizing this process)
- Perform retrospective at the end of each month or milestone. (I can help you in conducting this first time)
- No body should keep bad news with him. It is better to expose that as earlier as possible.



# **Recommendations**

# Processes\* Recommended

#	Project Name	Process Owner
1	Document Review Process	Mr.Prakash
2	Risk Identification	Mr.Imam
3	Project Scheduling	Mr.Sagar
4	Cost Estimation	Mr.Jawahar
5	Resource Allocation	Mr.Pradeep
6	Contracting Process	Mr.NKS
7	Project Status Reporting	Mr.Prakash
8	Risk Management and Control	Mr.Imam
9	Change Management	Mr.NKS
10	Configuration Management Process	Mr.Sagar
11	Stand up meeting	Mr.NKS
12	Update plan project process	Mr.Prakash
13	Retrospective Meetings	Mr.NKS

\*Above processes need to defined by the owners identified above. They will be reviewed by consultant

# Documents\* to be maintained

#	Document Name
1	Project Schedule
2	Cost Estimates
3	Risk Register
4	Assumption and Constraints Log
5	Issue Register
6	Minutes Of Meeting
7	Action Register
8	Project Charter
9	Change Log
10	Change Request
11	Impact Analysis
12	Communication Management Plan
13	Requirement Traceability Matrix
14	Stakeholder Register
15	Resource Pool
16	Configuration Register

\*Above documents has been given to the project team. They need to fill above templates for the current project.

# Activities Performed in consulting

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- Stakeholder expectations understood & documented
- Existing Processes discussed
- Critical processes identified and explained how to define them as per organizational and project need
- MSP Training
- Project Schedule is finalized without resources & cost
  - Master plan is finalized after departmental schedule reviewed by departmental heads
  - Inter-relationship between departmental activities are taken care into final plan
- Resource pool is developed



# Activities Performed in consulting

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- PMO Constituted & PMO Champion identified
- Project Manager and core project team identified
- Responsibilities of PM, PMO, Project Team Members and Functional Heads explained

# Stakeholder's Expectations

Stakeholders	Department	Expectations
Mr.K.Venugopal	Mechanical	Completing project on time
Mr.N.Jayachandran	Instrumentation	Scope of project is complete.
Mr.J.Nopalan	Process	Better layout of plant
		Timely completion and hand over to production department.
Mr.C.Srinivasan	Plant	More Production
Mr.V.Raguraman	Administration	Shut down period to be minimized
		Complete project on time
		Safe implementation
Mr.V.Subramanian	Project	Properly Engineered
		Easy to operate & sustainable
		Completion in time
Mr.N.Kalyana Sundaram	Operations	Timely completion on or before 25-Jan-2014.
		Detailed project plan on time
		No compromise on safety & quality
		Existing production capacity should not come down
Mr.Harish	HR	Proper handing over of Operations. Operation staff can work independently without taking help from Project.
Mr.T.Jayachander	QA & R&D	Effective utilization of resources
		Increase capacity & Reduced power consumption
		Effective utilization of power.
		Create a team for operation who will validate project objectives during the operation.
		Performance trial run

# Findings

# Strengths

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- Serious commitment for good project governance and planning from top management
- Project team members are serious and always ready to learn new things
- Departmental heads are committed for the project
- All employees are very friendly to each other and company have a very positive working environment



# Weaknesses

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- Bottom up estimates of duration, cost, resources, scope was missing at the time of making commitments
- No baseline project schedule found
- Risk register is missing
- Issue register is missing
- No stand up meeting of project team
- Poor reporting and early warning systems (Project Manager understood only in March 2013 that Project cannot be completed in June 2013)
- Poor monitoring and controlling system

# Risk Management

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- Contingency reserve 3% is not managed and utilized separately?
- No risk register available, hence no risk monitoring and controlling activities. If risk occurred then ad-hoc work is the way of managing risk

# Resource Management

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- No central repository from where any type of resource's availability, utilization, type etc can be known
- Stakeholder expectations not documented. Therefore stakeholder analysis is not performed and stakeholder management strategy is missing
- Every department was not adequately involved estimation, scheduling and assumptions documentation

# Configuration Management

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- Type of document, naming convention, storage location, version, access permissions not documented



# Next Steps

# Next Steps of Action

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## Planning

- Fine-tune shutdown plan and link any related project activity to this plan's activities: 1-Nov-13
- Baseline WBS, Activities, Resources & Cost in Microsoft Project: 6-Nov-13
- One hall with enough empty wall space should be allocated for the project. This is called **project area**.
- **Project area** should have Burndown chart, impediment listing, risk listing and Kanban chart
- Only Project Manager, Finance Coordinator & PMO should have access to master plan mpp
- Project plan should have multiple milestone in a month, called Cycle.

# Next Steps of Action

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## Project Coordination

- Daily standup between project team members. Meeting should be coordinated by PM
- Operations standup meeting should also include progress & impediments updates from project manager
- Impediments and risk should be managed effectively.

# Next Steps of Action

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## Updating Project Plan

- Project coordinators Update project plan on daily basis
- Project Manager should ensure that project progress is up to date
- One person from every department (project coordinator), who is working on project, should take responsibility of updating .mpp\* on daily basis. Before updating project progress in .mpp a copy of .mpp should be made, previous day's date should be appended to file name & this file should be archived.

\*Microsoft Project Schedule file of individual department.



# Next Steps of Action

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## **Governance (Reporting, Monitoring, Controlling, Escalation)**

- Project coordinators should take the reports from their .mpp and share with their department head, as and when required.
- Project Manager should make a weekly report for management and send to the management on every Saturday evening.
- Project manager need to understand what information they want in weekly report. (I can provide template if required)
- Team must perform retrospective at the end of every cycle
- Inter team impediments should be removed by project team members
- External to team impediments should be owned by project managers
- Any slip to milestone should be taken very seriously and team should be helped to get out from the problem. If management is not able to pay attention and remove impediments then project plan should be allowed to be revised.
- Raise early warning related to any delays or failure so that there are no last moment surprises and timely action can be taken
- Project manager need to look take critical path very seriously

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