

Global Start-up Planning

Executive Summary Execution Plan – Written plan of what will be done

Start-up Strategy – Condensed Power Point Executive Summary

Site Integrated Process Flow Sheets – Visual flow plan of the Start-up philosophy

Scheduling – Assigning durations to the work identified above bases on 12 or 24 hour day

System Scoping / Punch-listing

Develop and Apply Scoping Philosophy for Electrical, Process, Utilities.

Identification of system boundaries for turnover by area following scoping philosophy.

Develop Turnover Priorities by Area, by System.

Construction walk-downs by scoped system and development of deficiency punchlist.

Pre-commissioning Activities Identification, Planning and Execution

Develop procedures detailing the work to be done and how it will be safely executed.

Direct and execute all system pre-com set-up, execution and equipment reinstatement.

Procure and manage specialized vendors to execute specific complex tasks if required. Develop scope of work packages.

Develop electrical loop checks and procedures.

Develop and execute mechanical / rotating equipment pre-construction preservation and startup plan.

Develop motor rotation checks and initial motor run ins.

Provide live trending alignment on rotating equipment.

Develop instrumentation loop checks procedures and checksheets, device commissioning, transmitters functions, valve stroking.

Develop automation loop check procedures and checksheets for SIFT, SAT, and commissioning.

Develop first fill information for Supply Chain Management.

Factory Acceptance Testing of vendor equipment.

Module yard inspections.

Construction / Turnover / Completion Management Teams Interfacing

Act as operations representative to ensure a quality built product is turned over.

Align and keep teams focused on Area / System priorities and provide direction when required.

Provide solutions to issues as they arise to keep construction / turnover on track.

Work with contractor to utilize construction window to execute pre-com activities prior to installation of heat trace and insulation for time and cost savings.

Take ownership of systems (TCCC Transfer of Care, Custody & Control) from construction on the owner's behalf for commissioning & start-up activities.

Participate in multi-discipline walk downs as owner's rep or as support to operations.

Coordinate activities around tie-point connections to existing running facilities.

Commissioning Activities Identification, Planning and Execution

Determine type of commissioning activities required by system

Develop operating procedures, detailing work to be done and how

Develop mechanical/maintenance procedures for equipment commissioning and / or repair

Lock Out & Tag Out (Loto)

Permitting

Risk Reviews

Hazops

Model Reviews

Field Level Risk Assessments (FLRAs)

Direct and execute all system commissioning set-up and execution

Work Tracking and Communications Protocol

Weekly report outlining project progress, forecasts, risk potential - Sent to senior leadership

Daily update meetings with discipline leads

Clean Pipe Program progress tracking by system.

Area Process Tracking Sheets - Visual breakdown of activities on a step by step basis

Tracking of Mechanical Completion & TCCC'd systems.

Punch-list tracking by system until closure.

Site wide notification of C&SU activities that impact other stakeholders.

Document Audits.

People & Equipment Services

Commissioning coordinators / techs

Rotating equipment coordinators / techs

Piping coordinators / techs

Electrical & Instrumentation coordinators / techs

Automation coordinators / techs

Management or Support Team

Sub-contractor procurement and management

Equipment rental/procurement & management

Client specialty requirements I.e. Engineering support, PSSR set-up coordinators, Turnover / Punchlist tracking & auditing coordinators, Permit Office set-up coordinators, HSE Coordinators Completions &

Commissioning Database Administrators – **Learn more about the software Stonehaven uses and recommends for it projects from Industrial Business Solutions – Continuum-Edge @**

www.continuum-edge.com

Post Start-up or Ongoing Operations Support

Operations coordinators and techs

Maintenance coordinators and techs

Turnaround coordinators

Site Wide Services coordinators and techs

Procedure Writers

Customized E-Learning & Training Support – Learn more through our partnership with SMT

Learning @ www.smtlearning.com

