Work Transfer Management Process

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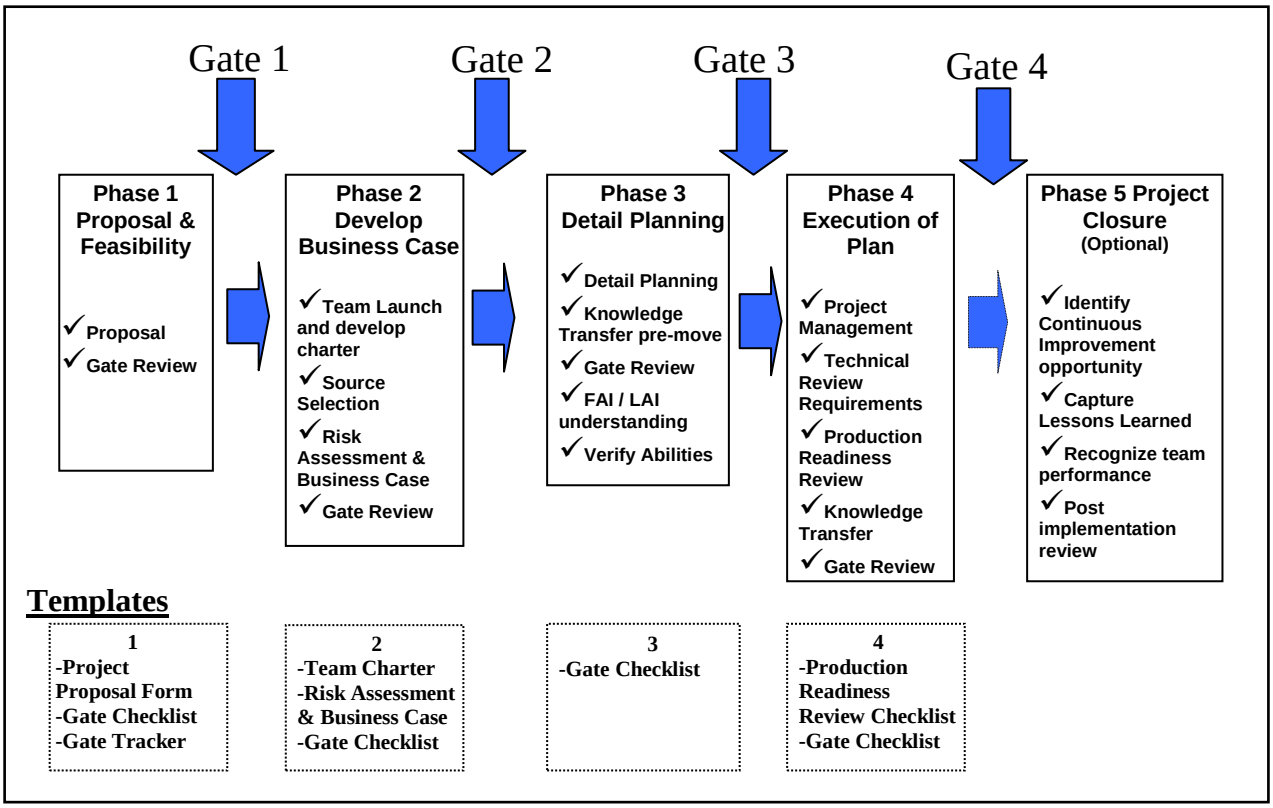

Work Transfer Management Phases & Gates
Figure 1

7.0 Work Transfer Management Process

7.0.1 Purpose and Scope:

The purpose of this chapter is to provide guidelines for the exercising of effective risk and management control when changing the source of supply or manufacturing method of a component, a component package or assembly across a company or its external supply chain. Work transfer is the movement of the work (products and associated activities) from one manufacturing site to another.

- Customer (organization) to supplier (Make to Buy)
- Supplier to customer (organization) (Buy to Make)
- Change from Supplier A to Supplier B
- Change of site at Supplier A

The above types are equally applicable to sub tier suppliers.

Possible reasons for the transfer of work:

- Capacity
- Procurement strategy (e.g. Need for second source to secure the supply chain)
- Cost Reduction
- Performance improvements
- New Technology

7.0.2 Definitions

Transition Team- The Transition Team consists of multi-discipline members as determined by the organization's structure. The Transition Team supplies the needed information to the Gate Review Committee so they may make the most effective decision. The Transition Team is responsible for seeing that all work is performed at each phase. The Transition Team gathers the information required by each phase and prepares a summary providing all pertinent documentation to the Gate Review Committee at the end of each phase. The Work Transition Team Charter Form explains who, why, what and how of the project.

Gate Review Committee- The Gate Review Committee also known as the Approval Authority has the responsibility to make the appropriate decision at each Gate Review. The Gate Review Committee is a multi-discipline committee formed of members from various departments and stakeholders through out the organization. The members are selected, based on perceived risk, applicable regulatory or legal requirements, technical complexity and criticality of the product. The chair must have the appropriate level of authority to make the Go, Proceed with Actions, or No-Go, decision required after each phase at each gate review. Department representation may include: Quality, Manufacturing Engineering, Planning, Purchasing, Engineering, Program Managers, Business Development, Contract, Legal, or others as deemed necessary.

7.0.3 Gate Review and Decision Process:

The successful transfer of work from one facility to another is dependant on a phase-gated review process. This chapter provides guidance for transferring work from one site to another in 5 phases with 4 gated review/decision points.

The gated review/decision points are designed to involve members from multiple disciplines within an organization to answer 2 questions, are we working on the right plan? And, are we executing it well? At each gate review the team makes one of three decisions; Go (continue to the next phase), Re-Direct (obtain additional information to make a decision), or No Go (stop the process because it is no longer viable or a better opportunity has surfaced).

The gated points below are used to review the previous phase, and to make the Go, No-Go, or Proceed with Actions decision.

- Assuring that a program has a valid value proposition and is being executed properly.
- Discovering early that a program is not viable and stopping it before significant resources are wasted.
- Identifying, quantifying and resolving risks regarding work transition failure.
- Creating leadership accountability for the success or failure of programs.
- Helping a Transition /Team resolve problems with a transition.
- Holding effective and efficient gate reviews during the transition process.
- Treating program resource allocations as a series of options which may be exercised or not exercised depending on the current value proposition of the program.

At some point there may be a decision made by the Transition Team to proceed with actions to the next phase, at this point it is recommended that any actions or open items be recorded on the gate review form noting the person responsible for completing each item. All items determined to be mandatory by the Review

Committee on the checklist provided can not remain open at the start of the next phase, those that are not considered mandatory must be closed prior to or during the following phase gate review.

7.0.4.1 Approval Authority

This gate review process is applicable to all changes, but the level of governance will vary depending on the degree of assessed risk associated with the proposed change. Exit from each stage depends on a satisfactory gate review by an appropriate Approval Authority. The gate review committee may decide to proceed to the next phase with some open items requiring actions be completed. In this case, the actions required to proceed to the next phase shall be documented within the Gate Review form and closed prior to the approval to proceed at the following gate review.

The level of Approval Authority is dictated by project type, and can be classified as Critical, Key, Significant and Minor projects. Guidance is given below as to appropriate authority levels for each project type, see figure 2.

- Critical projects - are likely to be major strategic moves (typically large work transfers i.e. complete factory moves, whole systems transfers etc) with complex or classified components, which carry significant risk.
- Key projects - these are likely to be major strategic activities, (multi component or commodity transfers) where the level of risk is somewhat lower than for critical programs
- Significant projects - these are major activities, (small quantity of component transfers) where the risks are deemed to be relatively low
- Minor Projects - where the risk of impacting component delivery is low

	Senior Level	**Management Level**	**Local Level**
Critical	All -Gates		
Key	Major-Gates (2, 3)	Minor -Gates (1,4)	
Significant		Major -Gates (2, 3)	Minor -Gates (1,4)
Minor			All Gates

Approval Authority Required to Attend (Project Type/Classification)
Figure 2

- Senior Level– typically chaired by Managing Director or CEO (person responsible for organization)
- Management Level– typically chaired by Quality / Engineering Manager or Equivalent (person responsible for applicable program)
- Local Level – chaired by someone authorized by the Quality or Engineering Manager

7.0.4.2 Protocols

The enforcement of predetermined protocols is essential to an effective and efficient review. The following are suggested protocols for holding a gate review meeting;

Situation	***Examples of Committee's Response***
Gate Review Committee Member not available - if Chairperson, then … - if permanent member, then … - if key advisor, then …	 - postpone the gate review - appoint a delegate - postpone the gate review
Transition Team's documents not available before review	postpone the review
Gate Review Committee Member arrives late or has not studied the review documents	member not permitted to ask questions already covered, but may request to postpone

Transition Team has not adequately assessed risks and/or provided a robust mitigation plan, and/or completed the phase	automatic redirect decision
Gate Review Committee Member is on the Transition Team	member excused from decision
Transition Team does not provide a clear recommendation with required resources	automatic redirect decision
The Transition Team's information is not summarized at an appropriate level for decision making	review is stopped; Transition Team instructed to improve presentation
As soon as the transition team realizes that an agreed tolerance is going to be exceeded if the transition continues	the Transition Team Leader shall contact the Gate Review Committee to tell them that the process is in trouble and that an interim gate review is necessary to decide on options for the transition.

Gate Review Protocols
Figure 3

7.1 Phase I – Proposal & Feasibility

The purpose of Phase 1 is to ensure the feasibility of any proposal to transition work brought forward by a member of the organization with a focus on avoiding wasteful expenditure of organization resources. During Phase 1, a work transfer project proposal is developed and presented to the Gate Review Committee, appointed by the organization, to authorize Phase 2, Develop Business Case.

The initial phase of any work transfer process must define the scope of the proposed work transfer. The purpose is to gather sufficient objective information to enable a decision to proceed with the work transfer during a gate review. The stakeholders will determine the necessary level of process governance to be applied to the work transfer project, as described in 7.0.

The Gate 1 review checklist is used to ensure all appropriate data is gathered prior to the gate 1 review. Gate 1 is a review of the Phase 1 activities and is the completion milestone of Phase 1, the committee must agree that the proposal and charter are clearly defined, and the transition team is appropriately experienced and skilled to conduct the work transfer process. They should also determine that the work transfer project aligns with company strategy. The approval to proceed provides the necessary resources (people and budget) for the development of a business case.

7.1.1 Proposal

The work transfer project proposal must contain sufficient information to show potential sources of risk and to identify any mandatory controls for the duration of the project. The Proposal form should clearly state the proposed need for change, identify the product and the critical success factors, i.e. cost reductions, turn-time reduction, performance improvement, potential risks, any mandatory customer or internal constraints, the intended future state of the work transfer, the recommended multidiscipline transitions team members, stakeholders, and estimated date for the gate 1 review. The proposal should ultimately look to confirm alignment to a business strategy or business need. However, change can sometimes be driven outside normal business strategy (i.e. emergency work transfer) in these instances the proposed change will clarify the reason for change.

7.1.2 Phase 1 Gate Review

The Gate 1 checklist is used to ensure all appropriate data is gathered prior to the gate 1 review. The Gate 1 checklist assists the Gate Review Committee in determining the feasibility of the work transfer project.

Gate 1 is a review of the Phase 1 activities and is the completion milestone of Phase 1. The gate review committee must decide to take one of the following actions: Go, Proceed with Actions, or No-Go, after

reviewing the deliverables from Phase 1. The gate review committee must agree that the proposal and charter are clearly defined, and the transition team is appropriately experienced and skilled to conduct the work transfer process. They should also determine that the work transfer project aligns with company strategy. The approval to proceed causes the organization to appoint a Transition Team and Gate Review Committee.

7.2 Phase 2 –Risk Assessment and Business Case

The purpose of Phase 2 is to fully define the work transfer project. During Phase 2 the risk assessment and business case for the work transfer project is presented to the Gate Review Committee to authorize Phase 3 Detail Planning.

7.2.1 Develop Transition Team Charter

Develop a project charter to provide the transition team with their key roles, responsibilities, schedules, constraints, and metrics for the work transfer project. The Work Transfer Management Proposal may be used to aid in the development of the team charter to confirm the project's alignment to the business strategy.

7.2.2 Source Selection and Recommendation

Supplier Selection is critical to the success of any work transfer refer to SCMH Chapter 1 Supplier Selection Capability Assessment for source selection guidance.

7.2.3 Risk Assessment

A documented risk assessment and mitigation plan is recommended. Elements of a risk assessment include but are not limited to the following and should not be considered all inclusive. Categories of risks related to work transfer.

- Quality
- Geographical/Political/Ethical
- Financial
- Customer Satisfaction
- Human Resources
- Improvement Activities
- Delivery
- Manufacturing Capability and Capacity
- Sub-tier control
- Design Capability and Capacity
- Safety
- Special Processes
- Design Complexity
- Manufacturing Complexity

Additional Guidance on preparing a risk assessment can be found in ARP9134 Supply Chain Risk Management Guideline.

7.2.4 Business Case

A business case is a detailed study of all aspects of the proposed work transfer project. The business case is used to confirm the alignment of the work transfer with the organization's strategy. The business case justifies the resources necessary to implement a work transfer project and provides a high-level view of the entire project, which gives a consistent message to all. The business case is used at the gate review to gain authority to proceed with project. The following examples are elements that should be considered in a business case:

- Describe the objective of the work transfer implementation effort.
- Identify activities of the project and major milestones.
- Estimate anticipated costs of work transfer implementation.

- Include one-time non-recurring and recurring maintenance or administrative costs.
- Include basis of estimate for proposed cost and savings, which are sufficient to establish the reasonableness of the projections.
- Identify and assess risks and provide mitigation.
- Estimate risk mitigation costs.
- Ensure internal and external customer requirements are met.
- Quantify or qualify anticipated benefits from the implementation.
- Summarize proposed project implementation costs and savings
- Executive Summary to provide management with a short overview of the work transfer business case outlining proposed actions, anticipated time span for accomplishing actions, and affected locations.

7.2.5 Phase 2 Gate Review

The Gate 2 checklist is used to ensure all appropriate data is gathered prior to the gate 2 review. The Gate 2 checklist assists the Gate Review Committee in determining the risks and validity of the business case.

Gate 2 is a review of the Phase 2 activities and is the completion milestone of Phase 2. The gate review committee must decide to make one of the following dispositions: Go, Proceed with Actions, or No-Go, after reviewing the deliverables from Phase 2. The gate review committee must agree that the team charter, risk assessment and mitigation, source selection, and business case are clearly defined and valid. The approval to proceed provides the authority to continue to Phase 3.

7.3.0 Phase 3 – Detail Planning

The purpose of this phase is to develop a detailed, task based program plan for Phase 4 execution of plan. The development of the detailed program plan must assess all program costs, schedule, and risk, and incorporate appropriate risk mitigation steps. The resulting program plan is used in development of a budget which will fund the transition project.

The deliverable from Phase 3 is an approved, detailed task based program management plan and budget which meets cost and schedule requirements for the program. The program should identify and rate potential risks, and incorporate appropriate mitigation steps in the event those risks are realized. The program plan should identify resources required to accomplish the tasks, as well as any specific procedures to be followed as applicable.

7.3.1 Project Plan

Detailed planning for any work transfer project requires the multi-functional project team identified in Phase 2 to brainstorm and build a project program plan which includes each task, or family of tasks, to be executed during Phase 4. The detailed plan includes:

- defined actions
- action owners
- planned start dates
- estimated task durations and resource requirements
- milestone completion dates

Note: Work Breakdown Structure WBS is another method of achieving a detailed project plan.

There may be several interdependencies between tasks which need to be built into the detail project plan. Various software tools exist to support such program planning to capture project plan details and are capable of monitoring and reporting project performance. The project plan should capture items applicable to the following various topics;

- continuity of component supply, overlap of delivery
- Capacity Planning
- knowledge transfer
- new source capability and approvals
- contract requirements

- material availability
- resource deployment
- validation and qualification requirements
- communication strategy
- Regulatory and Customer Approval(s)
- tooling
- Supplier Development
- Project Performance Review (cost, schedule, risk)

7.3.2 Knowledge Transfer (Pre-move)

Information must be gathered regarding product and process definition, requirements, tooling, quality levels, costs, etc. in order to provide assurance the project success. Many times production processes are not completely captured in manufacturing operation and tooling instructions. There may be certain steps or tasks taken for granted that may not be transferred with the documented procedure to the destination source. As such, it is suggested that the pre-transfer manufacturing process be audited / monitored by members of the transfer team to document hidden (undocumented) factory steps, operator actions, and lessons learned during manufacture at the exit source. This can be a sensitive issue for the workforce at the exit source, and as such, should be considered carefully. Ideally, this should be done during routine audits under the quality system of the controlling source, ensuring documentation of all actions and information. An example of the items to be considered during/prior to work transfer is contained in the Product Readiness Review Checklist, Process & Quality Section (ref. 7.4.3.).

7.3.3 Phase 3 Gate Review

The Gate 3 checklist is used to ensure all appropriate data is gathered prior to the gate 3 review. The Gate 3 checklist assists the Gate Review Committee in determining the organization readiness for the execution of the plan.

Gate 3 is a review of the Phase 3 activities and is the completion milestone of Phase 3. The gate review committee must decide to make one of the following dispositions: Go, Proceed with Actions, or No-Go, after reviewing the deliverables from Phase 3. The gate review committee reviews the Work Transfer Project Plan and Knowledge Transfer Checklist to verify that the summary of collected data is sufficient, original business case remains valid. The approval to proceed provides the authority to implement the detailed project plan.

7.4 Phase 4 – Execution of plan

The purpose of Phase 4 is to execute the work transfer in accordance with the detailed project plan developed in phase 3.

7.4.1 Project Management

During execution of the plan, the objective is to complete each task according to the scheduled milestone date, within the resource allocations made in the plan. Typically, deviations occur during execution of the plan which should be measured to show the project's performance to plan. Deviations can have a positive or negative impact to the overall project, and introduce risk. These deviations need to be managed in order understand the impact they have to subsequent program tasks or customer commitments, and minimize overall program risk.

7.4.2 Technical Requirements Review

Early in the process it may be desirable to dedicate a meeting entirely to an overview of the purchase contract terms and conditions, drawing/specification requirements, and the associated reporting. This is not a negotiation meeting, but rather an essential review to eliminate misunderstanding during production and delivery of the product. This is especially important if the facility has not done work for your company in the past, or if this is a new product line and there are nuances to the program.

7.4.3 Production Readiness Review (transition team reviews)

It is essential during the execution of the plan to conduct regularly scheduled production readiness reviews. This is an opportunity to review the status to the plan that was developed in Section 7.3.1. All elements of the plan shall be reviewed and risk areas identified. Action items are recommended and a follow-up process established.

During the planning process there may have been items that were identified as needing correction for future production, such as drawings or specifications. These items must be completed prior to the production of hardware at the new facility. Items to be reviewed during the production readiness reviews:

- Calibration plan
- Tool tryouts
- Special process approval status
- Qualification status
- Quality Management System
- Flow-down of requirements to sub-tier suppliers
- Status of sub-tier supplier approvals
- Metrics
- Staffing
- Training
- Work instructions
- Long lead materials
- Action items

7.4.4 Last Article/First Article Inspection

Problems can be encountered with parts produced at a new source even though they are in compliance with applicable drawings and specifications. This is often due to variation in targeting and actual dimensions within the applicable dimensional tolerance.

Last Article inspection should be performed on the last component from the exiting source. First Article inspection should be performed on the first component from the new source. Both inspection processes should be performed in accordance with AS9102. The results of the first article inspection shall be compared with the last article inspection. If there are gaps and/or differences, the impact must be evaluated to determine if there are program risks to continuing to build parts at this configuration. As discussed previously, there may be a need to target a non-nominal configuration, and therefore the results of the FAI need to be reviewed in detail, rather just verifying that the parts are within the dimensional limits of the drawing or specification. Typically these non-nominal requirements should have been addressed during updates of the specification and/or drawings, but it is recognized that this does not always happen.

7.4.5 Knowledge Transfer (Post-move)

Information gathered regarding product and process definition, requirements, tooling, quality levels, costs, etc. is delivered and used to verify the new source has received all available information.

7.4.6 Phase 4 Gate Review and Project Closure

The Gate 4 checklist is used to ensure all appropriate data is gathered prior to the gate 4 review. The Gate 4 checklist assists the Gate Review Committee aides in determining the completion of the work transfer project plan.

Gate 4 is a review of the Phase 4 activities and is the completion milestone of Phase 4. The gate review committee must agree that the business case was met and lessons learned have been captured. The gate review committee must verify that the transition was implemented according to the detailed project plan. The approval to proceed provides the authority to continue to Phase 5 Project Closure.

7.5 Project Closure -Phase 5 Optional

7.5.1 Capture Lessons Learned

Lessons learned should be reviewed at the closure phase of any work transfer and where appropriate should be communicated or implemented into the process so to improve the process next time it is implemented.

7.5.2 Recognize team performance

Recognizing team performance at the end of any project is an important step in helping drive high performance within team activity. Recognition can be in many different forms, but may typically be communication of team achievements, team rewards, or simply senior management acknowledgement.

7.5.3 Plan Post implementation Audit

Good practice for any work transfer is to plan a post transfer audit or review. This activity would typically be within 3-12months after completion of work transfer. The purpose of this audit is to review the performance of the new supplier, to validate the benefits declared within the business case have been met and to ensure lesson learned are embedded within the work transfer process.

Note: No gate review is required for completing Phase 5 – Project Closure.

Appendix 1 –Forms and Templates

The forms identified below and referenced within this document can be accessed via the SCMH under Work Transfer chapter 11.1.3 Forms and Templates. The forms are accessible, printable, and electronically fill-able.

Available Forms and Templates by Phase

Phase 1
Work Transfer Project Proposal
Gate Tracker (Gates 1-4)
Gate 1 Review Checklist -Proposal and Feasibility Checklist

Phase 2

Work Transition Team Charter
Risk Assessment & Business Case
Gate 2 Review Checklist –Develop Business Case

Phase 3

Gate 3 Review Checklist –Detail Planning

Phase 4

Production Readiness Review Checklist
Gate 4 Review Checklist –Execution of Plan

Figure 4