# White Paper 2019-03

## How Implementing and Owning a Strong Interface Management Process is Essential for Owners

In our work for Owners driving large, complex projects we too often identify processes that do not have the resilience and consistency that would be required. This may be due to several factors and dramatically impacts the success rate of the project. In this White Paper we investigate Interface Management in more detail, possible reasons for oversight, consequences on the project and ways to implement a proper approach.

## **Applicability**

This White Paper is applicable to Owners driving large, complex projects involving several Contractors and scopes. Even if a single EPC Contractor is contractor for most of the scope, interface management is generally still required when considering the full scope of the project from the Owner perspective:

- Interface with existing Owner facilities and thirdparty facilities,
- Interface with the facility feedstock (characteristics, availability, logistics),
- Interface with the suppliers of long-lead items ordered by the Owner in advance of the project, and with process license providers,
- Interface with the future Operator and operating organisation,
- Interface with regulatory processes and government agency relations,
- Interface with the commercial department related to the sale of the facility product,
- Interface with financing bodies.

Therefore, for most projects, critical interfaces need to be properly managed at Owner level. The issue is obviously more acute and interface points substantially more numerous when several contractors are involved on separate sections of the scope.

Interface management is indispensable – why is it too often overlooked by Owners?

## Consequences of lack of Interface Management

Lack of Interface Management on a project can have dramatic effects on project delivery (cost and schedule) as well as on plant operability. Poorly managed interfaces might lead to impeding works to proceed, inadequate design of interfaces leading to rework and additional work, with final consequences in terms of cost and schedule. Some typical examples include:

- Inadequate physical interfaces between several sections of the facility such as piping location and quality, expected flows of fluids etc, leading to suboptimal operation of parts of the facility and substantial physical reworks during project execution and commissioning,
- Delivery of components from other parties which is incomplete in terms of packing, documentation,

- tools, and physical components not consistent with expected geometry, weights etc,
- Poor progress or delays due to inadequate management of critical shared supplies on site, work camp, Owner provided material, etc,
- Contractors not providing the required information in a timely manner for licensing and other government authorisation purposes,
- Part of a facility found difficult to operate or operating inconsistently with the rest of the facility,
- Etc.

More subtle consequences include:

- Inconsistencies in technical approaches on several sections of the facility, leading to substantially higher maintenance costs in the long run,
- Sub-optimal movement of materials and products on site, leading to higher operating costs,
- Etc.

#### **Objectives of Interface Management**

While the previous phases of the project development process should have anticipated and described as much as

> possible many interfaces between parties, it is essential at any point during project development and execution to be able to manage new emerging interface issues. Some specific interfaces related to simultaneous operations or shared services during engineering,

procurement and construction also require sufficient oversight by the Owner to ensure pre-defined rules are followed and to manage unavoidable unexpected events. Because interface issues can quite dramatically affect a project outcome, both in terms of delivery and operability of the facility, it is also an essential part of Project Control (refer to our White Paper 2017-03 'The Three Essential Transverse Processes to Keep Large, Complex Projects Under Control').

Therefore, the objective of Interface Management by the Owner is to respond to emerging interface queries and operational issues affecting interfaces so as to minimise their impact on project delivery.

#### Reasons for Oversight or Ineffectiveness

In the course of our interventions we have identified the following causes for the lack of Interface Management by Owners:

 The belief that Interface Management is not needed when giving the work to a single EPC Contractor: there are always substantial segments of the Owner

scope not covered by the Contractor - even in build, lease and operate contracts,

- The attempt to delegate interface management to the community of Contractors, hoping that they would be able to resolve interface issues in an amicable manner without Owner involvement. Because of the important commercial implications of interface-related decisions, this approach always falters because each Contractor tends to try to benefit from the situation,
- Improper interface management process, either too rigid or lacking reactivity, leading to interface requests not being addressed in a practical and timely manner; this often happens when interface management is delegated to an Owner's engineer or EPC organisation with a lack of Owner oversight.

# **Case for strong Interface Management** by the Owner

We strongly believe that Interface Management should be part of the reserved scope of the Owner, because:

- Interface Management can have a dramatic impact on the project outcome (cost, schedule, operability)
- Many interfaces can only be owned and managed at Owner level and are difficult to delegate.

In addition, Contractors should be encouraged to proactively identify their interfaces including with other parties, and it is beneficial to make each contractor responsible for resolving its interfaces (when the Owner gets involved in the resolution of interfaces or needs to

channel information, it often results in delays, therefore this situation should be minimised). The Owner needs to be informed of impacts to the individual parties' scope and needs to be responsible for sanctioning resolutions to interfaces where solution either

generates a commercial impact or affects the compliance of the overall facility with the requirements. The Owner may well remain a mandatory intermediary for certain interfaces with external stakeholders and the Owner needs to have the right to modify the process for exchange and resolution of interfaces to address cases where the process is not adhered to.

The Owner must also retain the obligation to ensure that its other contractors comply with the interface process and deadlines.

A properly setup Interface Management process, managed by a sufficiently experienced technical person, does not require a substantial manpower to run even on large, complex projects. It requires mainly a very experienced technical person, possibly supplemented by an administrator. Therefore, the burden of managing Interfaces as part of the Owner team is limited.

#### Conclusion

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Interface Management is an essential process that must be taken seriously by the Owner to ensure proper control of the project and a successful outcome. We believe the responsibility should not be delegated or subcontracted, as it has dramatic consequences on the successful outcome of the project while not being onerous in terms of resources if well designed. Interface management is indispensable – why is it too often overlooked by Owners?

