

# 19. Outsourced Maintenance



Guidance for TOCs outsourcing maintenance. The section provides good practice guide in understanding required 'skills and competences' for a efficient project delivery.

## 19 Outsourced Maintenance

This section contains best practice for managing outsourced maintenance beyond the obvious case of a TOC sub-contracting all engineering to another company. Some issues are just as important to a TOC that keeps most work in-house but engages a contractor to carry out a modification programme in an addition to normal maintenance.

The principles can be applied to:

- Service provision contracts – the train is totally under the control of the maintenance company until handed over for service at the depot outlet
- Full maintenance contracts – the depot is operationally controlled by the TOC but all engineering work is undertaken by the supplier
- Joint ventures – management of maintenance is shared commercially and the workforce may be drawn from both the TOC and the supplier
- Extended warranties – a rolling stock manufacturer has a continuing on-site commitment to rectification of defects
- Technical support contracts – a rolling stock supplier has a long-term obligation to provide depot-based technical support
- Special projects – a team of contract staff is retained for a modification or reliability improvement programme

Any of the above may include supplying spare parts for maintenance and repairs.

Many of the points are also relevant to the management of heavy maintenance, which is in effect outsourced if it is done through the ROSCO or another outside contract.

Whatever model is chosen, the contract arrangements should be clear and simple so that accountability for service delivery is unambiguous. This is particularly important in a joint venture where it can be easy to forget who is responsible for what.

### 19.1 Reasons for choosing outsourcing

Outsourcing is a strategic business decision taken by the train operator. The purpose of this section is to help anyone who has already decided on outsourcing to make a success of the arrangement. However, any company going down the outsourcing route needs to be clear why they are doing it and what they expect from it. The TOC should check that the contract delivers at least one of the following advantages:

- to offset the technical risks associated with a new train fleet and ensure the train builder has a long-term stake in the success of its product
- to obtain expertise and resources not available to the train operator without disproportionate effort or expense, or to share commercial or logistical risk with an established partner (this point may be especially relevant to smaller or independent train companies)
- to obtain additional short-term or marginal resources and expertise

### 19.2 'Golden Rules'

The three main principles for successful outsourced maintenance are:

1. Relationships. The 'join' at working level between maintainer and train operator needs to be as seamless as possible to deliver a consistent and high-quality product to traincrew and passengers.
2. Ownership and engagement. The TOC (as the Railway Undertaking) continues to 'own' the delivery of a safe, reliable train, e.g. effective management of safety and competency issues.

3. Application of the 20PP. The advice in this document is just as relevant to a contractor as to an in-house maintainer. Supplier and client need to work together to put the 20PP into practice. For example, outsourcers may be managing maintenance plan risks which relate to both companies.

#### 19.2.1 **RULE 1. Relationships – partnerships for performance**

Major outsourcing contracts are distinctive in that the customer may have difficulty switching supplier in any but the longest term. Failure by the supplier to provide the service could be a potentially fatal business risk to the client. Finding an alternative provider is even harder where a maintenance contract is linked to new train procurement.

This means that many of the usual sanctions (e.g. termination, renegotiation, introducing competition) may not be realistic options. A different approach is needed to ensure that the parties continue to work together, whatever difficulties arise along the way. In such cases, a partnering approach is not simply desirable but essential for a successful outcome.

It is also important to be alert to financial, industrial-relations or other problems in the supplier's organisation. With a partnering approach, such problems are less likely to appear at the last minute, and it may be easier to work out contingency plans. The 'no surprises' rule works both ways – an informed supplier may be better able to help a client in a difficult situation.

The relationship can extend beyond partnership:

Example: VTWC sees relationship management models moving through the following stages:

- Combative – hardball negotiations to get what you want at the expense of the other party
- Co-operative – an ongoing exchange of services on mutually acceptable terms
- Partnership – seeking to maximise value from productivity and joint developments
- Collaborative – creation of competitive advantage for both parties

VTWC/Alstom consider the following a sign they have reached the collaborative stage:

- Close relationship with shared values and common goals
- Working together to develop trust between the parties
- Performance regime changed to incentivise even small improvements
- Contract amended to reflect how the parties actually work together

Whatever the relationship, the elements that need to be tackled by both parties can be grouped as follows:

#### **Organisational**

- Making sure that the client and supplier organisations are complementary, i.e. that they fit together in a coherent way and responsibilities are clearly understood.
- Empowering local contract managers to make all the necessary routine decisions and giving immediate backup when needed. It is very important for the supplier to provide a one-stop-shop to the customer.
- Escalating any genuine commercial disputes promptly to senior level so that front line managers and engineers can concentrate on working together to provide the train service.
- Making contract arrangements appear as joined-up as possible. It should not matter to a member of traincrew, a passenger or a third party such as Network Rail, who is doing what to resolve a particular problem. The joint output is what matters.

## Cultural

- Encouraging the supplier and their workforce to identify with the client's success through team-building sessions, joint training initiatives, joint branding, etc. and by making sure maintenance staff get the chance to ride the trains in service and see performance from the passenger point of view.
- Ensuring the suppliers fully understand the business and operational needs of the client.
- Maintaining regular liaison at senior management level, even when things are going well.
- Building trust; both partners must ensure their local management teams have the confidence of their counterparts.

Example: key to the excellent Class 357 fleet performance is the relationship between C2C and Bombardier, which is carefully nurtured. The same information systems are used by both parties depot procedures are jointly developed, rather than imposed, and many joint social events are arranged.

### 19.2.2 **RULE 2. Ownership and engagement - integrating the supplier into day-to-day operations**

#### **Teamwork – part of running the railway**

The real-time nature of a transport operation means that there is no time for contractual discussions or arms-length relationships. If the supplier is only a partial player in the overall maintenance activity (as is the case with warranty and technical support contracts), they should be treated simply as a division of the TOC's maintenance. If outsourcing is more extensive, then the supplier should work closely with the train operations delivery team to provide the service.

Example: the maintenance controller/technical rider team on TPE is seamless, working on one roster, although some are paid by the TOC and some by Siemens.

The relationship with traincrew and their managers should be strong so that problems at the driver/train interface are dealt with quickly, openly and effectively. This may involve joint fault-finding guides, staff briefs and user manuals, whereby the TOC and the supplier have equal parts to play.

At another level, the outsourced provider should be an integral part of the rail industry as a whole. Where relevant, the supplier should participate in industry reporting systems (such as National Incident Reports) and join wholeheartedly subscribe to industry initiatives such as ReFocus and fleet user groups.

#### **Safety and competency**

It is essential that safety and competency are proactively managed by the TOC as the Railway Undertaking. In particular:

- Ensuring competency assessments are based on outputs through audits and process checks based on operational risks and hazards, not just on training records.
- Ensuring competency requirements extend to the supplier's managers and team leaders, not just front line staff.
- Insisting on strong follow-up for technical safety problems so that both long-term as well as immediate solutions are implemented.

If the depot is still managed by the TOC but used by contractor's staff, then occupational health and safety is an important issue.

- Ensuring the maintainer's method statements and risk assessments are relevant to the location involved, and not too generic.
- Working together on routine health and safety activities such as safety tours and accident investigations.

**Example:** C2C work closely with their maintenance supplier Bombardier on competency and HASAW issues at East Ham Depot. Initiatives include:

- Auditing each other's health and safety arrangements
- Using common procedures for occupational safety matters (e.g. depot protection, accident investigation)
- Joint training programmes for all staff
- in-process checks of supplier's personnel

### 19.2.3 **RULE 3. Application of the 20PP**

Two key areas to highlight here are performance regimes and maintenance planning:

#### **Performance regimes and performance management**

A robust and relevant performance regime does two things. It encourages the supplier through financial incentives and it provides a yardstick to judge the overall success of the contract. It should never be seen as a way of punishing the supplier.

In structuring the contract, the performance regime must:

- Reflect the key performance indicators by which the TOC itself is judged
- Have individual penalties that are sufficient to concentrate the mind of the supplier, and match the business risk to the TOC, but are not punitive (disproportionate penalties may constitute unfair conditions and be legally unenforceable)
- Not cap the total performance payment level at too low a figure

The financial value of a performance regime should be enough to allow the supplier to build a business case for investing in necessary improvements to the product or service.

The performance regime must also cover the availability of customer services on the train (e.g. toilets, heating and ventilation, information, catering). To achieve satisfactory results in this area, the train company will have to set up reliable fault-reporting systems and put personnel in place to monitor quality and operate the systems.

For successful performance management, both parties must:

- Adequately resource reporting, measurement and monitoring systems
- Establish the facts of any incident as quickly as possible
- Settle routine claims promptly, escalate any disputes, and avoid a backlog of unresolved disagreements

However, a performance regime alone is no guarantee of success and may not always be appropriate for small contracts where there is less money at stake. The supplier should not find it preferable to pay the penalty rather than fix the problem. Financial compensation is very much second prize compared to good contract delivery, especially if reputations suffer. To be successful, the performance regime must be backed up with positive contract management and a will to succeed.



Example: The performance of Northern's Class 323s significantly improved following a tender won by Alstom. Factors behind this include: an agreed performance improvement plan in the contract; Northern removing their site engineer from Longsight so Alstom can manage more freely and transfer their culture change to Class 323s; the presence and engagement of Washwood Heath engineering expertise at Longsight.

## Maintenance planning

TOCs should ensure the best possible maintenance schedule. Even if the supplier carries the financial risk of the work, the client will still see a major business benefit if reliability and availability are maximised through optimal maintenance. To help achieve this, the TOC should exercise its rights of approval as the Railway Undertaking over the maintenance regime. There may also be obligations on the rolling stock owner to check that maintenance is carried out properly.

Points to watch include:

- Checking that train maintenance frequencies promised in the original offer are being met
- Checking that all parts and sub-systems of the train are adequately covered in the maintenance regime (*see Appendix D for risk model*)
- Insisting that the maintenance schedule is fine-tuned to the service requirements of the particular fleet – generic schedules may under- or over-maintain equipment relative to usage
- Exercising rights to approve changes to the schedule
- Seeking C4 to C4 warranties where appropriate

Active involvement in maintenance planning and allocation to operational diagrams is important. Particularly on a complex network, day-to-day operational requirements can upset the carefully crafted programmes of maintenance planners. It is therefore best if all operational decisions are taken by the TOC so that the risk of units running out of fuel or overdue maintenance are managed by the people accountable for overall service delivery.

In the case of contract staff undertaking modifications or reliability improvement programmes, it is important for the TOC to have a clear view of progress. Such work is sometimes carried out on an ad-hoc basis at a number of locations: the TOC should control when and where each modification is completed on each train.