

## 17 Outsourced Maintenance

This Section contains best practice in managing outsourced maintenance. However, these principles don't just cover the obvious case of a TOC that has sub-contracted all of its engineering to another major company. Some of the issues are just as important to a TOC that does most of its work in-house, but has engaged a contractor to carry out a modification programme as an addition to normal maintenance activity.

The principles can be applied to:

- Service Provision contract – the train is totally under the control of the maintenance company until handed over for service at the depot outlet
- Full Maintenance contract – the depot is still operationally controlled by the TOC but all engineering work is done by the supplier
- Joint Venture – management of maintenance is shared commercially and the work force may be drawn from both the TOC and the maintenance supplier
- Extended Warranty – a rolling stock manufacturer has a continuing on-site commitment for rectification of defects
- Technical Support contract – a rolling stock supplier has a long term obligation to provide depotbased technical support
- Special Projects – a team of contract staff are 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 made in this Section are also relevant to the management of heavy maintenance, which is in effect 'outsourced' if it is done through the ROSCO or by another outside contract.

Whatever model is chosen, make the contract arrangements 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, with resulting loss of focus on reliability and performance.

### 17.1 Reasons for choosing Outsourcing

Use of outsourcing is a strategic business decision by the train operator, and this is not the place to discuss the economic choices involved. The purpose of this Section is to help anyone who has already decided on some level of outsourcing, to make a success of the arrangement. However, any company following the outsourcing route needs to be clear why they are doing it, and what they expect as a successful outcome. The TOC should check that the contract delivers against at least one of the following three strongest reasons for outsourcing:

- 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.

## 17.2 'Golden Rules'

The three important principles for a successful outsourced maintenance contract 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 Railway Undertaking) continues to 'own' the delivery of a reliable and safe train e.g. must ensure effective management of safety and competency issues.
3. Still apply the rest of the 20PP! The advice in this document is just as relevant to a contractor as to an in-house maintainer. Supplier and client will need to work together to put the 20PP into practice. For example, outsourcers may be managing maintenance plan risks (see Appendix D) which relate to business risks for both companies.

### 17.2.1 RULE 1. Relationships – partnerships (and better) for performance

Major outsourcing contracts are distinctive in that the customer may have difficulty switching supplier in any but the longest term. Failure of 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 for dealing with a contract that it is not going well. A different approach is needed to ensure that the parties continue to work together, whatever difficulties arise along the way. In contracts of this type, a 'partnering' approach is not simply a 'nice to have' but an essential element for a successful outcome.

It is also important to be alert for financial, industrial relations or other problems in the supplier's organisation. If there is 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 go further than 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 as a sign they have reached the collaborative stage:

- Close relationship with shared values and common goals
- Work 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

- Make sure that the client and supplier organisations are complementary, i.e. that they 'fit' together in a coherent way and responsibilities are clearly understood.
- Empower the local contract managers to make all the necessary routine decisions, and to get immediate back-up from other parts of their company when needed. It is very important for the supplier to provide a 'one stop shop' to the customer.
- Escalate any genuine commercial disputes promptly to senior level so that front line managers and engineers can concentrate on continuing to work together to provide the train service.
- Make the contract arrangements appear as 'joined-up' as possible to the rest of the world. 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

- Encourage the supplier and his workforce to identify with the success of the client train company. This can be done with 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.
- Ensure the manager's suppliers fully understand the business and operational needs of the client.
- Maintain regular liaison at senior management level, even when things are going well.
- Build trust; both partners must ensure their local management teams have the confidence of their counterparts.

Example: one of the keys to the excellent Class 357 fleet performance is seen as the relationship between C2C and Bombardier, which is carefully nurtured. The same information systems are used by both parties, so that all information is shared. Depot procedures are jointly developed, rather than imposed. Many joint social events are arranged.

### 17.2.2 RULE 2. Ownership and engagement - Integrate the supplier into day to day operations

#### **Team Working – part of the running railway**

The real-time nature of a transport operation means that there is no time for contractual discussions or 'arms-length' relationships at working level. 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 resource. If the outsourcing is more extensive, then the supplier should be working closely with the train operations delivery team to provide the service to the paying passenger.

Example: The Maintenance Controller/ Technical Rider team on TPE is seamless, working on one roster, although some people 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 production

of fault finding guides, staff briefs and user manuals. The TOC has an equal part to play here; it can't just expect the supplier to do this spontaneously.

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 with industry initiatives such as ReFocus and ARTTT (see 12.2).

### **Safety and competency**

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

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

- Ensure the maintainer's method statements and risk assessments are relevant to the location involved, and not too generic.
- Work together on routine Health and Safety management 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:

- 10 Auditing each other's Health and Safety arrangements
- 11 Using common procedures for occupational safety matters (e.g. depot protection, accident investigation)
- 12 Joint training programmes – all staff get the same message
- 13 Undertaking In Process Checks of supplier's personnel

### **17.2.3 RULE 3. Don't forget the rest of 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 just become a way of punishing the supplier for failure.

In constructing the contract, make sure that the performance regime:

- Reflects the key performance indicators by which the TOC itself is judged (e.g. use the standard industry definitions for delay minutes, see Appendix A)
- Has 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 of contract and turn out to not be legally enforceable)
- Does not cap the total performance payment level at too a 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 his product or service.

The performance regime must also cover the availability of customer services on the train (e.g. toilets, heating and ventilating, information, catering). To get satisfactory results in this area the train company will have to play its part in setting 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 the 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

But remember: a performance regime on its own is no guarantee of success, and may not always be appropriate to small contracts where there is less money at stake. Avoid being trapped in a situation where the supplier finds it preferable to pay the penalties rather than fix the problems. Financial compensation is very much 'second prize' compared to good contract delivery by the supplier, especially if it is your reputation that is suffering. To be fully successful, the performance regime must be backed up with positive contract management and a 'will to win' from both sides.

Example: The performance of Northern's Class 323s significantly improved following a tendering exercise won by Alstom. Factors behind this include: an agreed performance improvement plan in the contract; Northern removing their Site Engineer from Longsight so Alstom have more freedom to manage, and transfer their culture change across to Class 323s; the presence and engagement of Washwood Heath engineering expertise at Longsight.

## **Maintenance Planning**

TOCs should always ensure that the maintenance schedule is the best possible. Even if the supplier carries the financial risk of doing the work efficiently, 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 ensure that it exercises its rights of approval as Railway Undertaking over the maintenance regime. Remember you may also have obligations to the rolling stock owner to check that the maintenance is done properly.

Points to watch include:

- Check that train maintenance frequencies promised in the original contract offer are being met
- Check that all parts and sub-systems of the train are adequately covered in the maintenance regime (see Appendix D for risk model)
- Insist 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 the usage it gets on a particular network
- Always exercise rights to approve changes to the schedule
- Seek C4 to C4 warranties where appropriate

Be actively involved in maintenance planning and allocation to operational diagrams. 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 risks of units running out of fuel or going overdue maintenance are managed by the people accountable for overall service delivery to the passengers.

In the case of contract staff undertaking modifications or reliability improvement programmes, it is important for the TOC to have a very 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 being completed on each train.