

Security Classification:		NOT PROTECTIVELY MARKED	
Disclosable under FOIA 2000:		Yes	
Author:	PI Chris Bunyan PS Phil Bennett	Force / Organisation:	British Transport Police
Date Created:	2ND March 2011	Telephone:	020 7830 8994



THE BRITISH TRANSPORT POLICE

GOOD PRACTICE GUIDE ON METAL THEFT FOR POLICE

SECTION 1 – PREFACE

- 1.1 As a result of increases in metal theft in early 2007 a metal theft problem profile was published in 2008 and distributed to all Police Forces nationally; the problem profile has recently been updated to May 2010. In conjunction with that update this Metal Theft Good Practice Guide, also published in early 2008, has been updated to August 2010 and includes additional guidance on prevention, intelligence and enforcement plans. Metal prices continue to fluctuate and crime figures often show a correlation with those rises and falls.
- 1.2 Metal theft has impacted on the country in many ways and below are what is considered to be the five key risks posed to the country by metal theft:
- (i) Electricity supply (Local): A risk of death or serious injury of offenders, police, staff and public associated with copper thefts from electricity sub stations;
 - (ii) Failure of Critical Communication / Safety Equipment: Risk to life caused by the failure of equipment linked to key UK infrastructure e.g. National Air Traffic Control
 - (iii) Electricity supply: Risk to life caused by the loss of electrical power to a large urban area including hospitals;
 - (iv) Emergency Services: Risk to life caused by the breakdown of the communication systems for emergency services caused by the targeting of numerous communication systems in a localised area:
 - (v) Economic: The economic cost to the country is substantial. The risks are many fold and widespread, impacting on most aspects of living and working in the country. Below is a list of areas affected:
 - Industry including power generation and transport;
 - Local Authorities and/or Government facilities/infrastructure;
 - Members of the public and businesses;
 - The additional costs themselves can come in many different forms and can include labour costs of repairs and higher insurance premiums.
- 1.3 The ACPO Metal Theft Working Group is currently chaired by the British Transport Police (BTP) and has developed a strategic focus under four main headings as follows:
- Partnership opportunities
 - Crime reduction
 - Communications strategy
 - Review of legislation
- This group will formulate, collate and disseminate good practice on these subjects.
- 1.4 As with the previous guide specialists from the prevention, intelligence and enforcement spheres of the police service and industry have been contacted and relevant recommendations have been made and included.
- 1.5 The objectives of the assessment are to:
- Collate and evaluate intelligence in order to understand the scope and context of the problem;
 - Identify sources to generate a further understanding of this type of crime;
 - Identify information gaps to focus future intelligence gathering;
 - Inform preventive, intelligence and enforcement activity at national, regional, local and industry levels;
 - Inform partnership working;
 - Provide recommendations based on the issues identified to aid operational decision making and to inform government and policy makers.
- 1.6 There are some restrictions to be aware of as within the UK, ascertaining the actual level of metal thefts is made difficult due to under-reporting by industry. The main factors stated for this were previous poor police response and the

reluctance of industry staff to spend time reporting offences. Some police forces have stated that they generally do not distinguish metal thefts from other thefts; crime classifications that could be used include burglary, theft, and criminal damage. Stolen property could be listed as copper, cable, bright wire, aluminium, iron, lead, lead flashings, steel, nickel, co-axial, barrels, kegs, scrap or metal.

- 1.7 Metal theft is an international problem and large numbers continue to be recorded by all police forces and industry, fuelled by the high value of metals. However when the price of metal decreases so do the levels of crime. The estimated cost of metal theft was previously quoted as £360 million annually. However, the figure is now much higher when costs of repairs, staff hours, compensation payments and other external costs (e.g. fuel for vehicles) are all taken into account. The updated cost is now estimated at around £770 million.
- 1.8 Metal is being stolen from numerous types of locations and in varying forms due to its widespread use. Metals are easily recycled and the cash based nature of scrap metal industry allows for an easy disposal route.
- 1.9 Metal theft impacts all aspects of the community, from crime affecting individuals and communities through to its effect on national and global businesses e.g. power and transport providers. However when crime prevention measures are used reductions in offences can be achieved (see appendices B, C and D for details of crime prevention techniques).
- 1.10 There is significant difficulty in establishing ownership of recovered metal. Prior to 2005, metal theft was not a recognised problem and therefore metals were not embossed or given any identifying marks. To reduce costs, sheathing was similarly often ordered without any identifying marks but it is this legacy that now makes the identification of some cable and recovered metals difficult. Some industries have started introducing marking or embossing of their products to aid identification and forensic trace markers have also been used. The sheer scale of metal present throughout the country makes marking of all property impossible in terms of time, resources and costs and the marking of metals at the production stage is difficult as the UK imports most of its material. The recovery of unmarked property leads to difficulties in identifying victims and proving property is stolen. The prosecuting authorities are obviously reluctant to prosecute offenders without firm proof that property is stolen.
- 1.11 Scrap Metal Dealers (SMD's) are a primary disposal market for stolen metals within the UK. There are some issues around the lack of registration with Local Authorities for scrap metal dealers along with the cash based system for payment primarily used by SMD's.
- 1.12 Levels of metal thefts will not decrease until the global demand for metal decreases and the subsequent price of metal reduces from its current levels. This is unlikely to be before 2015.

SECTION 2 - GUIDANCE, ADVICE AND PROCEDURES

2.1. Crime profile and details

- 2.1.1 For the updated (August 2010) problem profile, there is now an estimated cost of crime of at least £770 million due to metal theft (details provided by police and industry). This figure does not take into account losses such as those a Local Authority might suffer from in terms of manhole covers or road signs, nor does it factor in any reputational loss to those companies who are victims of crime.
- 2.1.2 Within the UK, ascertaining the actual level of metal thefts is made difficult due to under-reporting by industry. Some police forces have stated that as they have no specific crime code for metal theft so trying to ascertain the true level of crimes committed is difficult.
- 2.1.3 There is currently a very high demand for metal fuelled by the needs of the emerging economies, predominantly China and India. There is also significant demand including the UK which has high profile sporting arenas to compete for the 2012 Olympic Games). It is anticipated that the Chinese economy will continue to grow fuelling more demand for more metals.
- 2.1.4 Metal is readily available and many current preventative methods are either poor or difficult to implement especially where there are extensive copper cabling, signalling networks and remote communication masts.
- 2.1.5 Metal theft continues to offer high profit for relatively low risk. Metal is easily disposed of through unregulated SMD's. The selling of scrap metal is cash based allowing criminals to use this to their advantage. It is often very difficult to prove ownership of recovered property, especially if the product is in its bare state.
- 2.1.6 Some industries have responded to criminals targeting their storage facilities by target hardening of vulnerable sites using crime prevention techniques. This has resulted in a decrease in storage facility thefts though some displacement of offences into non-secure areas has resulted.
- 2.1.7 The Modus Operandi for cable and metal theft vary from being highly organised to opportunist. Opportunist offenders steal unattended and insecure metals often in remote locations and includes using accessible objects and tools to remove the metal. Cable has been laid across the railway track for trains to cut it for subsequent removal. Wooden electricity pylons have been cut or burnt down in the hope of breaking the electric current to allow the copper conductors to be stolen.
- 2.1.8 More organised groups use transport to steal items such as transit style vans with high roofs, flat bed lorries, adapted skip lorries, vehicles with strong axle suspension and HIAB lorries which have lifting capabilities all of which have been used in the commission of metal thefts so the theft of these should not be looked at in isolation. The proximity of locations to major arterial roads suggests the use of larger vehicles and the willingness of some offenders to travel long distances to commit crime. They will also use insulated tools such as bolt cutters or angle grinders to ensure they are not electrocuted in the progress.
- 2.1.9 Targeting of depots and storage facilities has included thieves using deception and other tactics in order to enter sites and steal larger quantities of materials. These tactics include pretending to be contractors, ram-raiding and tailgating. Offenders have also used aggressive tactic in attacking these facilities since enhanced preventative measures by organisations have increased site security.
- 2.1.10 Some thieves are conversant with which locations contain various metals. For example, waste water treatment works have been targeted for copper cable and

stainless steel inlet screens. Energy and telecommunication company substations have also been targeted with earthing straps removed from within.

2.1.11 Mapping the available crime data often shows that there is a correlation between crime location and a major road within 2km of the theft site. This influences target locations though there are no distinct times when offences are occurring.

2.1.12 The following metals are likely to be stolen from anywhere they are present within an area (see problem profile on uses of each):

- Copper
- Lead
- Aluminium
- Steel / stainless steel
- Bronze
- Brass
- Platinum / palladium / rhodium (catalytic converters)
- Silver
- Zinc
- Nickel
- Tin

2.1.13 This is a summary of the most at risk areas which may be present in individual force areas:

- Railway lines
- Churches
- Underground telecoms systems
- Storage facilities
- Builders merchants / suppliers
- Water treatment works
- Electricity sub-stations
- Communication masts
- Electricity pylons
- Safety railings and fences
- Licensed premises
- Hospitals / schools / stately homes
- Residential properties and new build estates
- Metallic pavement covers
- Scrap yards
- Farms
- Motor vehicles
- Bronze statues
- Cemeteries

2.1.14 Limited information exists in order to put together an offender profile, however available data has suggested that the following applies:

- Male
- White European
- Aged 20's/30's
- Offenders commit offences near to their home address.
- Offenders have previously been involved in other volume acquisitive crime.

2.1.15 It is possible that the high proportion of young offenders arrested for this crime may be as a result of their inability to drive, and they are therefore more likely to be caught in the vicinity of thefts.

2.1.16 Other analysis indicates that many metal thefts, especially theft of lead, are committed by local offenders, with some Home Office Forces reporting that their Prolific Priority Offenders (PPO's) are involved in metal theft. It is also known that members of the travelling community are involved in this type of crime. One other issue to consider is the involvement of contractors, security personnel and other

associated staff is metal thefts. Members of these groups have been arrested and dealt with for metal thefts.

2.1.17 Organised Crime Groups are represented in some Force profiles as being involved in metal theft and is an area all Forces need to consider. In some cases significant quantities of metal have been stolen, which require specific types of transportation and several persons to enable the theft to take place.

2.1.18 There are other crimes committed which can be related to metal thefts either as a pre-cursor to the event or linked more directly:

- Plant theft
- HGV crime
- Catalytic converter thefts
- Scrap Vehicles

2.1.19 Price fluctuations in the value of metals can affect levels of offending as numerous global factors can influence the price of metals such as:

- Demand and thus a reduction or rise in metals stockpiled
- Strikes
- Natural disasters

2.2 Key risks

2.2.1 There is a risk to the lives of the people who commit these crimes and live electricity poses a risk to life of police officers and security staff dealing with an incident; people have died during the act of stealing metal. Maintenance workers and engineers are also in danger of being electrocuted when sent out to fix problems caused by metal thefts. The breaching of perimeter security at electricity substations renders the sites vulnerable to entry, with potentially fatal consequences due to the proximity of high voltage connections. The removal of substation earthing straps can lead to the risk of fire or explosion.

2.2.2 There are also the dangers to offenders and officers searching old derelict warehouses and factories with some sites not safe, e.g. collapse of flooring and the dangers of machinery falling through several levels cannot be discounted.

2.2.3 On the country's railway systems any person that may come across damaged live cabling may be at risk of harm. Suspects who offend on railway property put themselves at particular risk both from electrocution and being struck by a train.

2.2.4 Commuters also face risks when travelling on the railway. They may face delays to services whilst repairs are carried out or suspects pursued. They may face a possible financial risk with an increase in fares to cover the costs incurred by the industry. There are safety implications in relation to overcrowded stations and evacuating stranded trains stopped in tunnels, on viaducts and in remote areas. Ultimately they face the possibility of being victim to a derailment or collision as a result of metal thefts. There are also security implications of delayed or stranded sensitive goods trains.

2.2.5 There is a threat as a consequence of metal theft which has previously caused the air traffic control system at a major UK airport to be affected. Repeated attacks against the air traffic control system have resulted in a third level of resilience being introduced to protect the air traffic control system. If all levels were disrupted at the same time, planes could not be safely routed across the U.K.

2.2.6 The repercussions of telecommunications related theft is the potential to cause loss of telephony and broadband access to households and businesses. Members of the public may not be able to use the 999 system and there is the potential for the emergency services' communications systems, including command and control systems to be disrupted or taken down completely. Allied to this is that intruder alarm

systems might be affected allowing other crimes at dwellings and business premises to take place.

- 2.2.7 Personal alarms for the elderly or vulnerable also become inoperative. Loss of power at substations caused by thefts of metal during the winter could lead to loss of heating and power to homes and place vulnerable people such as young children and the elderly at risk. Numerous types of medical equipment common in homes, such as nebulisers, ventilators, apnoea monitors, oxygen equipment, bath hoists, and stair lifts all rely on a continuous electricity supply.
- 2.2.8 There is a threat of injury to members of the public when pavement level pits and manhole covers are opened for criminal intent and the covers not replaced.
- 2.2.9 The theft of lightning conductors at radio masts or on buildings raises the risk of electrocution to workers or persons near the area in an electrical storm. Without a lightning conductor, a building or mast suffering a lightning strike will dissipate the energy into the building or immediate vicinity. This places the building fabric at risk and any persons inside or nearby could be electrocuted.
- 2.2.10 There is an issue that loss of services will place extra burden on backup systems. A terrorist attack or any other significant threat to life may cause a failing of the national infrastructure with severe consequences.
- 2.2.11 There is an economic cost for delayed journeys, loss of telecommunications or power cuts including: ticket refunds; losses through breach of contracts caused by work overruns and costs claimed under company insurance schemes.
- 2.2.12 Any sites that store nuclear material or belong to the military are also at risk of attack if thieves believe there is substantial amount of valuable metal on the premises.
- 2.2.13 Continued theft of materials may cause delay to any flagship building projects or transport upgrades. There may be a risk to development around the Olympic site given the high amounts of metal required to complete the project. The Channel Tunnel Rail Link was repeatedly targeted during its construction.
- 2.2.14 Environmental issues have also been identified. The burning of cables in woodland areas to remove the sheathing is a potential fire risk. There is a risk of contamination to water courses and surrounding areas when water treatment works are targeted.
- 2.2.15 Industry is increasingly being fined by regulators for not providing services. Any additional cost to industry caused by offenders' actions may see the costs passed onto consumers. One electricity provider reported they received a five figure fine for loss of service resulting from theft of copper from one of their substations. There is also the reputational risk associated with bad media coverage should a high profile incident take place resulting in death, serious injury or the lack of an essential service. This may lead to a loss of public confidence leading to lack of investment will have financial implications for any companies involved.
- 2.2.16 In some cases a knock on effect occurs to people outside of the industry targeted. In October 2006 some earthing straps were stolen from the Croydon Tramlink. The resulting electricity failure caused loss of power to surrounding homes in addition to the tram service being disabled for several days.

SECTION 3 - OPERATIONAL TACTICS

3.1 Operation Drum was set up by BTP to prevent, detect and disrupt criminal activity in relation to the theft of cable from the railway infrastructure. Initially this started as a national crime reduction and intelligence gathering operation. It soon became clear that a more strategic approach was required and in August 2007, a national BTP task force was set up. The fundamental elements of Operation Drum were:

- Dedicated intelligence cell
- Dedicated detective team
- Dedicated intelligence led uniform team deployed daily to scrap metal dealers
- Dedicated Crime Reduction Officers (CROs) who tracked and visited repeat victims and locations and supplied advice accordingly
- Agreed protocol between control rooms and SOCO to prioritise metal theft hotspot locations
- Aide memoirs produced for industry and officers
- Multi-agency approach adopted for all elements of this operation was deemed vital

3.2 Operation Steel was a coordinated approach by West Midlands Police to deal with the problem of metal theft within the Black Country area. Liaison with local councils allowed registration of all scrap metal dealers in the area. Responsibility for ensuring that scrap metal dealers complied with the Scrap Metal Dealers Act rested with the local community officers. Modus Operandi were collated across the area to identify patterns of offending and potential offenders.

3.3 Operation Utah was a large scale cross border multi agency road check, developed by Kent Police. Locations of these checks were intelligence led and drew vehicles into a suitable off road location from a populated section of the strategic road network. Working to the aims of the ACPO Vehicle Crime Intelligence Service (AVCIS) it encompassed joint working amongst adjoining forces utilising intelligence databases linked to Automatic Number Plate Recognition (ANPR). Identified vehicles of interest were escorted into a large search bay location that was staffed by a whole range of partner enforcement agencies working together. Further support was provided by drugs dogs and drug trace detection technology. It represented full scrutiny in detecting crime and denying travelling criminals the use of the road network.

3.4 Operation Precious is a Thames Valley Operation aimed at providing a greater working relationship between Police, Partners and Scrap Metal Dealers (SMD). It is based upon a full survey of a SMD with the Licensing Agency, thereby providing a Red, Amber and Green (RAG) grading to a site. This will determine the frequency of future visits and enforcement activity. SMD's participating display signage to indicate they will not deal in stolen metals in addition to signing up to a charter regarding metal purchase and acceptance of identification from sellers (see Appendix G).

3.5 Operation Fragment is an Avon & Somerset Operation which uses a problem solving approach involving the Police, Local Authority and Scrap Metal Dealers. A key element is participation in a Service Level Agreement by SMD's which includes displaying registration signage at entrances, reporting suspects to Police, obtaining photographic identification and thumbprints from all sellers in addition to retaining CCTV for a period of a month. The Police and Local Authority enforce legislation and participate in crime reduction and media campaigns to raise metal theft awareness. Reported crimes trigger local Police visits to SMD's for fast time intelligence and reduction purposes.

3.6 Tactical plans – Prevention

3.6.1 Prevention/reduction - national policing level - Recommendations include:

- There should be agreed national minimum standards (ACPO Crime Prevention Initiative/Secured by Design) for storage depots with nationally agreed Risk Assessment and Security Action Matrices with sites that are critical or high risk identified (example at Appendix D)
- Above to be linked to Local Authority planning criteria and inspection regime

- Nationally agreed asset marking (ACPO CPI/SBD) initiative, again linked to high risk sites or specific areas with agreed security plans (to include technical/alarms etc with response)
- Level 2 and 3 offender details circulated to all key partners (water, power, telecommunications, rail etc)
- Nationally agreed training and awareness package for all key industry and police staff
- National communication strategy
- Home Office to produce generic crime reduction material for use by all forces and industry

3.6.2 Prevention/reduction – regional policing level - Recommendations include:

- More cross border cooperation with relevant industry/police. For example, agreed asset marking initiatives combined with other security
- Metal theft to be identified as a regional 'problem' and highlighted to Regional Crime Directors and local Crime Disorder Reduction Partnerships (CDRP's) in order that appropriate funding and resources are targeted to address the problem
- Agreed asset marking (ACPO SBD) initiative, again linked to high risk sites or specific areas with agreed security plans (to include technical/alarms etc with response)
- Level 2 offender details circulated to key partners (water, power, telecommunications, rail etc)
- Forces to ensure that sufficient Crime Reduction resources are available to service the needs of industry partners
- Regular cross border forum meetings with CROs and stakeholders to share experience, knowledge and potential funding
- Regional and local media and marketing needs to be coordinated, especially when asset marking is put in place to ensure that the full deterrent value of this tactic is recognised and understood

3.6.3 Prevention/reduction - local policing level - Recommendations include:

- Forces to ensure that sufficient Crime Reduction resources are available to service the needs of industry partners
- Level 1 offender details circulated to key partners (water, power, telecommunications, rail etc)
- Local CDRP's to be fully briefed on issues
- Regular metal asset marking 'checks' made at scrap merchants; e.g. large portable UV lights used to scan metals and cable in scrap yards
- Local industry briefed and supplied with crime prevention advice and packs
- Regular visits to local scrap yards in partnership with Local Authorities aimed at enforcement of legislation

3.6.4 Prevention/reduction - industry level - Recommendations include:

- Industry to create and manage database of staff/former staff that have either suspected for or have been involved in metal theft
- Industry to sign up to national standard for storage facilities (links to ACPO CPI/SBD)
- Industry to ensure all employees are briefed around metal theft and to encourage staff to take responsibility for security of assets
- Ensure that staff in sensitive positions are security checked
- Ensure that there are clear contractual obligations and a clear process for contractors and other staff to remove redundant metals and assets during and after works
- Agreed industry asset marking schemes

3.7 Crime reduction principles

In order to prevent and therefore reduce crime, police and other agencies use the following ten principles of crime prevention. The general examples of each are shown below:

3.7.1 Target hardening

Make targets less prone to criminal activities. For example:

- Fencing
- Gates

- Locks
- Designing out crime

3.7.2 Target removal

Permanently or temporarily remove persons or property that may become the subject of crime. For example:

- Demolishing disused property
- Removal of redundant assets from vulnerable locations

3.7.3 Remove the means to commit crime

Ensure that anything that can be used in the commission of crime is not easily available. For example:

- Locking up equipment such as ladders, disc cutters and other tools

3.7.4 Reducing the payoff

Reduce the scale of the loss or lower re-sale value if crime is committed. For example:

- Mark property so that it is easily recognisable
- Keep a minimum amount of stock on site using the “just-in-time” delivery principle
- Use alternative materials

3.7.5 Access control

Reduce the access into vulnerable areas. For example:

- Utilise identity/swipe card access facilities
- Entry phones
- Keypad entry systems
- Separate entrances and exits

3.7.6 Surveillance (Natural, Formal and Informal)

Enable areas to be seen or monitored clearly. For example:

- Remove or prune overgrowing shrubbery
- Improve lighting schemes
- CCTV and other technologies
- Security staff
- More frequent and targeted (risk-based) inspections
- Store valuables in view of staffed offices or areas of high footfall

3.7.7 Environmental design

Use the design of a building or area to reduce the chances for crime being committed.

For example:

- No blind corners
- More surveillance including use of glass instead of opaque materials
- Lighting systems/CCTV

3.7.3 Rule setting

Introduce levels of acceptable behaviour and a means to achieve this. For example:

- Wearing ID cards
- Signing in at reception upon arrival
- Signage prohibiting access
- Encourage staff to challenge people they don't know
- Robust staff vetting and employment screening

3.7.4 Increase the chance of being caught

Increase the risk of being caught in order to reduce the chance of crime being committed. For example:

- Proper maintenance of CCTV/lighting
- Alert offenders to use of CCTV
- Delay offenders' escape (e.g. fencing)

3.7.10 Deflecting offenders

Divert offenders from criminal activities. For example:

- Education
- Schools liaison
- Training and work experience
- Youth work

3.7.11 It is important to realise that each compound, depot or work site will not necessarily utilise all ten principles. Each one will need to have its solution tailor-made to suit the circumstances and location.

3.8 Crime reduction advice

The purpose of the following sections is to highlight specific problem areas that have become apparent during the rise in incidents of metal theft and to offer broad advice on the prevention and reduction opportunities. All Police Forces have fully trained Crime Reduction and Architectural Liaison Officers (CRO/ALO) who can provide free advice and inspection reports on specific locations. It is always good practice for the CRO or ALO to be present to offer security recommendations at the earliest stage of any project.

3.8.1 Reduce the opportunities for thefts from depots/storage compounds:

- A Site Security Plan should be agreed and distributed to relevant personnel. It is vital that individual responsibilities are clearly outlined in this document.
- Target hardening by applying robust security methods and systems in an integrated security plan is not difficult to achieve. However, most sites will require some expenditure to bring security up to the required level, which should be to an agreed common standard in consultation with their local CRO/ALO. Hard security should include: high quality fencing, gates, locks, anti ram-raid protection, alarms and extensive monitored and recorded CCTV. An inner compound for more valuable stock may be considered.
- Have a policy for strategic action signed by the CEO or Director (the policy should include several of the items noted below).
- Some organisations have already identified that reducing conductive metal theft requires specific funding immediately if savings are to be made in the long term. In these organisations conductive metal theft now appears on their short, medium and long term financial plans and is discussed at senior management level. Any decisions made at these meetings are cascaded to the workforce.
- Consider installing an Intruder Detection System (IDS) or other security alarms to the site, which will be activated at the time of an attack. All security systems e.g. CCTV, lighting, IDS should be integrated and monitored so that a response can be made in the event of an activation. The CCTV will need to comply with the Data Protection Act and CCTV Codes of Practice.
- Signage should be utilised to advertise the use of alarm systems. Signs should also warn of the dangers present on site and indicate the potential for prosecution.
- Consider employing security officers on site checking in and out vehicles, staff and materials. Their role will also involve the patrolling of the site outside of working hours. This is a simple and effective method of physical control, which is very effective on many private sites. Staff must be adequately trained, vetted and Security Industry Authority (SIA) licensed. They should be present on site 24/7. Quality of work should be tested, not assumed and can be done using management visits and through the use of a Security Tour Verification System i.e. a system where the security officer has to visit a certain location and uses a proximity reader or card to verify their patrol route.
- Consider having a small number or strategically placed high security cable stores, rather than many small poorly protected storage points. This could be achieved by using depots shared with other partners to save cost. This must be balanced against the increased threat to such a site and its contents.
- Have a policy for staff vetting at particular high risk sites and for staff who are in positions of responsibility for High Value (HV) contracts and goods such as HV metals.
- Educate all staff (both resident and contractors) to be pro-active by having a “check and challenge” policy on site. This can be achieved by conducting proper induction of staff upon employment or arrival at a new location. In addition, staff should be

encouraged to be responsible for their own site. Simple measures such as tidying will give the impression of an orderly site.

- Minimise stock levels in depots or on sites by using the just-in-time ordering and delivering principle wherever possible (see later—Transportation).
- Consider storing cable drums on their sides (flat) as this makes them more difficult for thieves to remove.
- Consider the use of a drum bracket or clamp to prevent a drum being rolled by offenders or chain cable drums to the ground or other suitable secure anchor points.
- Chain cable drums and other heavy equipment together to make them harder to move.
- Store high value metal/cable in the centre of a stock pile (honeycomb effect) or in separate locked containers within the compound. Store cable well away from the fence line to prevent easy access from an external area by cranes etc.
- Have a system that records the registration number of vehicles and persons that visit or come to notice around the site. This information may become invaluable for law enforcement purposes. This will include any search regime of persons/vehicles that is considered appropriate.
- If keys are used, ensure that there is a strict key control mechanism in place for all aspects of the cable compound area.
- Ensure that any disused gates into the compound have some form of vehicle blocking installed, e.g. concrete blocks. This will prevent unauthorised access or ram-raiding of the compound. Alternatively, consider the complete removal of gates and re-secure the section.
- Ensure there is a policy for the storage and disposal of scrap metal and ensure that accurate records are kept in respect of disposals and deliveries.
- Where staff are working alone, consider the use of suitable personal attack alarms which should be linked to a response force.

3.8.2 Reduce the opportunities for thefts from remote locations such as track-side, cable runs, mast sites and sub-stations:

- Consider the use of non drying paint similar to anti-climb paint to cover all cables. Anyone touching or cutting the impregnated cable would be immediately contaminated. The paint would also contaminate any tools or vehicles used. By making the paint non-flammable it would also inhibit the modus operandi of burning off the covering sheath.
- Bury or encase cable in sand to increase the difficulty of unauthorised removal.
- Tie the cable securely together in troughs and cable runs with banding to prevent it from being pulled through.
- Mark the sheath with the name of the owner or a unique identifiable code.
- Deploy a visible security presence and patrols using accredited staff (e.g., Railway Safety or Community Safety Accredited staff).
- Ensure prompt removal of redundant cable to a central storage compound with the security levels as above. Consider this as part of a contractual obligation if external contractors are used.
- Define the boundary to be protected. Secure all access routes with secure gates and fencing (see above also - depot / compound perimeter security).
- Erect warning notices advising of the dangers of entering the site or facility.
- Utilise partnership arrangements with landowners and local residents in remote, vulnerable locations, e.g. utilise any Neighbourhood Watch or Farm Watch schemes currently in operation.
- Consider alarms and CCTV for sub-stations. Many systems are portable and can now work from solar power.
- Have a strategy of action (e.g. an escalating grid) see Appendix D.
- Press/Media notices should be suitably worded to warn of the dangers, rather than to advertise the value of the stolen goods.
- Consider a reward scheme in partnership with industry.

3.8.3 Reducing the opportunities for theft during the transport and delivery of materials:

- Restrict the use of driver self-certification of delivery. At all times someone on site must sign for, and ensure, the correct materials have been delivered.
- The delivery of materials should be controlled so that the minimum amount of stock required is held on site. This makes it easier to secure the assets.

- When stock is required for a project it should be delivered just before it is required, not weeks or months before. This just-in-time theory will support the above to hold minimum stock on site.
- There must be a robust procedure for booking in and out of a site. This applies equally to staff, goods and any vehicles.

3.8.4 Making metal and cable more identifiable and traceable in a cost effective way:

- Introduce identification in the manufacturing process. Impregnating with dye, post code, forensic strand, branding, dye stamp insulation and core with name of the owner or code.
- Cable sheath and earthing conductor marking (e.g. stamp, colour, engrave, (consider unique forensic markers or similar at manufacture stage).
- Consider use of non-drying paint similar to anti-climb paint to cover all vulnerable cables. This could incorporate an identifier, microdot or unique pigmentation in the paint that would make it identifiable. Each industry could have a unique "signature" engineered into the paint.
- Company bulk order or use one supplier to dictate industry requirements for manufacturers to design and build in the unique identifier.
- Ensure that where unique marking is used a record is kept of the location of that asset (e.g. GPS location) and the unique identifier.

3.8.5 Cost effective engineering solutions/opportunities for designing out theft of conductive metals:

- Consider the following solutions to aid crime reduction through design and engineering:
- Use wireless signalling/transmission which would eliminate copper theft substantially.
- Future "Loss Values" to be transferred to development of a project, the aim being to self-fund counter measures.
- Use of fibre optics for schemes where metallic cable use is not necessarily required.
- Introduce unique identifiers at the manufacturing stage.
- Change the shape of cable drums so they cannot be rolled easily by hand, e.g. 50 pence piece shape.
- Consider the use of a drum bracket or clamp to prevent the cable drum being rolled by offenders.
- Where large metal objects are required (e.g. electrical cabinet doors) the use of reinforced plastic or other low value metal content material should be considered.
- Utilise alternative low value materials in place of metal where possible.

3.8.6 Protecting redundant assets:

- Securing all redundant assets together into heavy and bulky units in order to make unlawful moving of these more difficult.
- Removing them from site immediately after disconnection from supply.
- Storage in secure compounds should immediate removal not be possible.
- Use of one sole contractor for the uplift and removal of these assets. Consider contractual arrangements with reputable scrap dealers for final disposal and always insist on copies of records.
- Ensuring all staff and contractors know the company policy in relation to disposal of redundant assets. The policy should include the fact that staff do not have authority to dispose of redundant material by other means and certainly not for personal gain.

3.8.7 Conclusions

Many of the recommendations appear more than once in separate sections; this is due to the fact that such recommendations are interchangeable from location to location and not necessarily specific to one area of concern. However, it is important that each compound, depot or work site is treated as a separate issue. Your local police CRO/ALO will be able to assist. They will have knowledge of local crime trends and issues that will affect the choice of methods best used for crime prevention/reduction purposes in your area.

3.9 Tactical Plans – Intelligence

3.9.1 National

3.9.1.1 It is important to share information nationally on the identity of organised crime groups involved in metal thefts, especially those entering from other crime areas. Information needs to be obtained and shared on a regular basis on new Modus Operandi, future threats and the state of the global metal markets. As a result of the intelligence gathered so far, intelligence gaps in the following areas have been identified and require development:

- Identification of unlicensed or unlawful activity by scrap dealers
- Identify the freight forwarding / shipping companies exporting metals
- Movement from ports

3.9.2 Regional

3.9.2.1 Establishing a regional Metal Theft Coordinator in Regional Intelligence Units which would provide a clear single point of contact for cross border liaison ensuring the timely distribution of information across all levels of policing and facilitate the ability to establish displacement of offending into other areas.

3.9.2.2 Gather Intelligence on the regional storage of large quantities of stolen metals direct for shipping as not all stolen metal is disposed of through scrap dealers. Information suggests that some metals are stored in shipping containers and then sold direct to buyers once the container is full. Information is required on any groups or locations where this may be happening.

3.9.2.3 Gather information on any companies who are buying stolen metals from scrap metal dealers or other sellers. Regular visits to scrap metal dealers and examination of their invoices will identify from who they are buying metals, to who they are selling, and what type of material and quantities are involved.

3.9.2.4 Development of intelligence links operating within 'middle markets' to identify possible Organised Crime Groups. (OCG's). Intelligence can come from numerous sources in relation to 'middle markets.' One element is metal dealers who have an export capacity within their business and their use of container companies. Some of these companies are being used unwittingly and are exporting metals with no knowledge of the fact it is stolen. Gathering invoice data from the metal, haulage and container industry, along with HMRC and ports for shipping manifests will give a far better intelligence picture in relation to the movement of metals. This includes confirmation of export routes, quantities and frequency of movement of metals. However, this will not necessarily identify all movements of stolen metals as Organised Crime Groups (OCG's) may cut out the middle market and convey stolen metals from the theft site straight to container then export. OCG's may attempt to hide the true contents of containers for export within the manifest data. The 'middle market' invoices can be compared to the metal dealer's invoices, this would help confirm the authenticity of such records and identify evidence for possible criminal proceedings against companies and individuals.

3.9.3 Local

3.9.3.1 Basic Command Units (BCU's) should be aware of scrap metal dealers operating in their area and ensure they are licensed and take action to ensure they comply fully with the Scrap Metal Dealers Act. Regular inspection of records at scrap yards provides a source of intelligence in relation to vehicles and names of suppliers.

3.9.3.2 Task Covert Human Intelligence Sources (CHIS) to gather information on metal thefts as it is believed that approximately 70% of offenders commit metal theft near to their home address, information to be gathered on local offenders.

3.9.3.3 Using Safer Neighbourhood Teams identify visibly vulnerable premises and liaise with owners to improve security and identify local dealers in scrap metal who may not operate from an established yard e.g. dealers trading from a back

garden, garage, or vehicle. Inform local scrap dealers of recent thefts to prevent them from unwittingly taking stolen property.

- 3.9.3.4 Utilise fast time identification of possible offenders in the locality of emerging hotspots through the inspection of scrap metal dealer records.
- 3.9.3.5 All operational staff should have access to a daily briefing regarding recent incidents of metal theft, how to identify metal, nominals and vehicles involved.
- 3.9.3.6 Active industry participation will help close the intelligence gap. It is suggested that:
 - Industry to provide details of identifying marks on their property so a database can be created
 - Industry to identify a Single Point of Contact (SPOC) so that suspected stolen metals can be identified by a company expert
 - Scrap metal dealers to be encouraged to join the BMRA
 - Memorandum of Understanding (MOU) to be established to ensure information sharing on offenders can be given to private industry.
- 3.9.3.7 In the course of intelligence gathering, research and the requirement for joint working practices, Forces should be actively promoting the contact and development of government and industry partners. These include government bodies such as the Home Office, Serious Organised Crime Agency (SOCA) and Her Majesty's Revenue and Customs (HMRC). Many such partnerships have been built and developed between Forces and Network Rail, Train Operating Companies (TOC), British Telecom (BT), Mobile Industry Crime Action Forum (MICAF) Conductive Metals Group, BMRA (British Metal Recycling Association) and the Environment Agency. Most recently contacts have been made within the Highways Agency. New contacts and partnerships should be made as the situation develops (see Appendix F for Governmental and Agency areas of responsibility).

3.9.4 Intelligence gaps

- 3.9.4.1 It is unknown to what extent security and contractors are complicit in the planning and commission of valuable metal theft offences though there is intelligence to suggest that this does happen. The extent of deliberately targeting employees or contractors as part of a structured Modus Operandi (MO) is unknown.
- 3.9.4.2 It is unknown what percentage of stolen metal is disposed of directly abroad, via scrap dealers or to order through a local black market economy.
- 3.9.4.3 A well informed National Offender Profile is yet to be established to assist in targeting of offenders or the extent of Organised Crime Groups' (OCG's) involvement in metal theft. It is not known to what extent OCG's involved in other crime areas are moving into metal thefts because of the high value - low risk it offers.
- 3.9.4.4 The levels of sentencing of offenders for metal theft offences is also not fully known, therefore what deterrent value that might hold is not fully understood.

3.10 Tactical Plans – Enforcement

3.10.1 National

- 3.10.1.1 At a national level, multi-agency and coordinated days of action have proven to be a successful tactic. By utilising industry representatives, DVLA, VOSA, Trading Standards and police forces working together, the arrest potential against offenders is maximised (see Appendix F for further information on government and agency areas of responsibility).

- 3.10.1.2 Working with the prosecuting authorities to raise awareness and develop a Memorandum of Understanding around charging, bail, remands, impact statements, compensation, and post conviction ASBO's also forms part of the enforcement plan. There is a need to raise the profile of metal theft and ensure charges are brought at the appropriate level.

3.10.2 Regional

- 3.10.2.1 Evidence has shown that enforcement activity around scrap yards will displace activity to scrap yards in other areas. To successfully tackle this crime it is imperative that a regional approach is taken.

3.10.3 Local

- 3.10.3.1 There is a range of activities to be undertaken at a local level. These include visits to scrap yards, identification of vehicles used to commit offences, and patrol techniques. Ensuring close working relationships with prosecuting authorities, local Housing Associations and the Environment Agency are also recommended.

3.10.4 Scrap yards

- Identify registered and unregistered scrap outlets in the area and share information with partners
- Engage local councils to licence any scrap dealers that are not registered with the Local Authority
- Establish regular visits to scrap yards to disrupt offenders, gather intelligence and identify and recover stolen property
- Covert and overt operations in line with any force intelligence assessment
- Include Force Financial Investigators (FI) at an early stage in relation to Proceeds of Crime Act (POCA) and money laundering offences as scrap metal dealers and their clients deal predominantly in cash.

3.10.5 Vehicles

- Identify vehicles used in the commission of these crimes utilising ANPR and PNC appropriately.
- Utilise existing legislation to disrupt the criminal use of vehicles by using the powers of seizure under Section 165 RTA 1988 and Section 152 Serious Organised Crime and Police Act. This Act gives the Police power to seize and crush or otherwise dispose of vehicles if they are driven without insurance or the driver is not licensed to drive the vehicle.
- Agencies such as VOSA, DVLA and HMRC can also provide valuable assistance to disrupt and deny criminals the use of vehicles.

3.10.6 Patrols

- Various patrolling options are available including displacement patrols, pulse patrols and micro beats to deter and arrest offenders operating in problem identified areas.

3.10.7 Housing Authority liaison

- Local Authority housing and Housing Associations will have occupancy contracts. A normal caveat is that no activity on the property will be unlawful.
- Therefore the storage of metal, stripping or burning of cable would be unlawful, so eviction proceedings from that Local Authority could be sought.

3.10.8 Environment Agency

- Liaise with your local Environmental Agency. Anyone burning the cable to remove the rubber sheathing commits a pollution offence and fines have been significant. Post conviction ASBO's have also been achieved for pollution offences (see Appendix B for Environmental Act charges and court results).

3.10.9 Prosecutions

- Meet the Crown Prosecution Service to raise awareness and develop Memorandum of Understanding around the key issues of charging, bail, remands, victim impact statements, compensation and post conviction ASBO's (see example in Appendix B).
- Victim impact statements are important. They help the court to fully understand the gravity of this type of offence. All Industries who suffer metal thefts should be encouraged to produce generic impact statements signed by a responsible person from their group security or legal departments.
- Bail and ASBO conditions should be aimed at preventing defendants from re-entering locations where they have been previously arrested. Include curfew times during the hours of darkness if appropriate.
- Formulate an action plan to police which includes any bail conditions or ASBO's that are achieved.

3.10.10 Exploiting forensic opportunities and CCTV

- All available forensic evidence should be exploited. Anything which may yield DNA or fingerprint evidence should be seized, i.e. cigarette ends, drinking bottles or cans and abandoned tools. CCTV should also be seized and where there is none at the scene of the offence, officers should check along the most obvious lines of route for Local Authority and privately owned CCTV.

3.10.11 Section 18 searches

- Section 18 searches should always be carried out in each and every case where suspects are arrested. If they are arrested at the scene and the property has been recovered, then a request for a search should be made. The basis for this is on the grounds that there have been other similar thefts in which property is still outstanding.
- Searches should be for any tools used to cut cable along with receipts from scrap yards showing any dealings in scrap metals. Bank statements should also be seized to show irregular income.

3.10.12 Intelligence interviews

- Every person arrested for cable theft should be the subject of a full intelligence interview. Wherever possible, this should be conducted by a CID officer with consideration as to whether the suspect may be suitable for potential CHIS recruitment.

3.10.13 Remand in custody

- Remand offenders in custody who are likely to commit further offences, fail to appear or have committed an offence with a high value.

3.10.14 Examination of mobile phones

- When officers submit mobile phones for forensic examination they should request a full download of the contents of the phone from their Hi-Tech Crime Unit. This should include the SIM card and any memory cards that are installed.
- Calls and SMS text messages should be examined as they may show criminal associations and possibly provide information of the scrap metal dealers they are using to dispose of the metal.
- It should not be forgotten that modern mobile phones can also provide much more information such as contacts, photographs and videos, voice recordings, and links to voice mails. All of this may be of use to the investigation.
- The mobile phone can also provide information which may assist with cell site analysis.

3.10.15 Satellite navigation

- Satellite navigation has become a pervasive part of every day life for many drivers. Examination of these devices can yield valuable information on the routes taken and locations visited by the suspect. This software can be installed on purpose built devices, but also on PDAs and mobile phones.

3.10.16 Consideration to money laundering offences

- The circumstances of the case may suggest it is suitable for a money laundering investigation.
- Money laundering offences are indiscriminate and can target those who are several stages removed from the original theft of metals and the original offenders. It does not matter who was responsible for the criminal conduct or what it was, as long as the offender knew or suspected that the property involved was criminal property. Stolen metal is criminal property for the purpose of this legislation.
- It is important officers contact their Financial Investigation Units (FIU) to obtain early advice concerning evidence and the conduct of the investigation.

3.10.18 Exploit the Proceeds of Crime Act (POCA) 2002 cash seizures

- If the suspects are in possession of £1,000 or more in cash, either on their person or in their vehicle at the time of arrest or at their premises following a search under: Sections 18(1) or (5) PACE; Section 32 PACE; or by means of warrant, then the officers should seize that cash under the Proceeds of Crime Act.
- The Act allows police officers to seize and forfeit cash believed to be the proceeds of crime. Cash means:
 - Notes and coins in any currency
 - Postal orders
 - Cheques of any kind, including travellers' cheques
 - Bankers' drafts
 - Bearer bonds and bearer shares, found at any place in the United Kingdom
- Since 31st July 2006, the cash limit is £1,000. Where the amount of cash is under £1,000, consideration should still be given to seizing the cash as potential evidence. If an offender has possession of significant sums of cash and no legitimate income to justify it, money laundering legislation should be considered.
- Cash seizures are effective in denying profit to the criminals. The onus is on the offender to explain where they obtained the cash. Again, early advice should be obtained from a FIU.

3.10.19 Private Prosecutions and Civil Damages Recovery

- If criminal cases fail or prosecuting authorities decline to prosecute, there are opportunities for organisations to conduct private prosecutions and recover damages through civil proceedings.
- Civil damages recovery can disrupt criminal activity and harm criminal networks and should be considered as a legitimate disruption tactic. Many organisations have their own legal services departments and are keen to conduct their own prosecutions. Even the ones that do not have their own legal departments can and will hire in such services when required.

APPENDIX B – ENVIRONMENTAL PROTECTION ACT PROSECUTIONS

- B.1 Thieves who steal copper cable regularly burn off the rubber sheathing to leave the copper core. The offender will obtain a better price for the pure copper from a buyer. The parts of the Environmental Protection Act 1990 relevant to cable burning are Sections 33(1) (b) and 33(6) of the Act.
- B.2 The fines received are far higher than for theft of cable and the offence is much easier to prove. No evidence of cable ownership is required as it is an offence to burn even your own cable. Supported by a post conviction ASBO, this elevates the burning of cable from low risk to a very high risk activity.

APPENDIX C – A N EXAMPLE OF A DEPOT SECURITY AUDIT

C.1 The aim of this template is to provide a common standard of evaluation in relation to security at depots due to the increased number of thefts being recorded at these facilities.

C.2 This template is intended to give an assessment by a scoring system to identify and categorise depots or areas of depots in need of attention.

C.3 The final scoring categories will be Excellent, Good, Fair or Poor.

C.4 In each of the twelve scoring categories of the audit each category will be scored from 0-4. One mark is for being poor through to four marks for being excellent. Zero is to be used when the depot has no facility in use, e.g. no CCTV.

C.5 The final figure will rate the depot.

Excellent	37 - 48 points
Good	25 - 36 points
Fair	13 - 24 points
Poor	0 - 12 points

C.6 The aim of this document is to provide a common standard of evaluation in relation to security at depots. This is in response to the increased number of cable thefts being recorded at these facilities.

C.7 The category score is intended as a reflection of the area under assessment as a whole, identifying its vulnerability or otherwise. A high score total is intended to indicate a higher level of security at the depot.

C.8 The twelve categories are in the left hand column and considerations for scoring in the right hand column.

Boundary	Does the boundary definition of the depot as a whole identify the site and deter/prevent unauthorised access? To include fence line, walls, gates and shrubbery.
Surveillance	Guarding and patrols. None, static at gatehouse, part time, full time.
Staff surveillance	Unstaffed, random visits, staffed during some point, staff on site at all times.
Informal	Can the whole of the depot be observed by neighbouring premises or domestic residents? No surveillance, restricted, part, full.
Natural	Can the depot be observed from other premises or local residents due to the fact the company has used an open style of fence (e.g. mesh instead of solid wall)? Cutting back trees and shrubbery that restrict surveillance. Relocating stock and vehicles away from the fence line or buildings.
Lighting	During the hours of darkness is the whole of the depot illuminated? Applied lighting levels to produce even levels of light distribution, avoiding pooling (area of bright light) and shading (dark areas). No lighting, lighting in some areas, some areas of pooling and shadows, even levels of light throughout the site.
Access Control	How are security measures applied to prevent and deter unauthorised access by vehicles and persons at all entrance/exit points to the depot? This could be achieved by gates, check points or a gatehouse. No controls at all, ad-hoc monitoring,

	control at some points/some times of the day, full time control –all movements challenged.
Intruder Alarms	Are all vulnerable areas on the depot covered by alarms e.g. offices, cable store or workshops? Are the alarms linked to monitoring stations that can action a response in the event of an incident? No alarms, some alarms - not monitored, some part monitored, all vulnerable areas covered by monitored systems.
CCTV Coverage	If installed can number plate identification be achieved at all depot entrance/exit points? Can persons be identified? Does the lighting system support the CCTV during the hours of darkness? Produce camera images of day time and night time to evaluate the quality of recording. Can staff operate and download from the system in the event of an incident? No CCTV, CCTV image quality has limited evidential value, part coverage of CCTV, system linked to monitoring station.
Buildings (Target Hardening)	What measures have been applied to target harden depot buildings, offices, workshops, and cable storage areas? This can be achieved by the fitting of window bars or grilles, upgrading windows, doors and locks. No measures applied, limited applications to some of the buildings, limited applications to all of the buildings, all buildings adequately protected.
Removing the means to commit crime	What measures have the company applied to make sure that material capable of being used to help an offender commit a crime is not accessible; e.g. ladders chained up, tools secured, waste skips chained and not stored under windows? No measures taken, some measures taken in some areas, no materials accessible.
Storage Area	What is the risk assessment in relation to the storage areas for cable and the quantity of cable normally stored at this location. No security - high volume of cable stored.

The document should be dated and reviewed at regular intervals.

APPENDIX D – SECURITY ACTION MATRIX

D.1 The following Matrix illustrates action to be taken following security breaches at sites.

Example Only Security Action Matrix (Breaches)				
Non remote site			Remote site	
	Site breached No theft or breach of asset	Site breached asset damaged or stolen	Site breached No theft of asset	Site breached asset damaged or stolen
1 st Breach	1. Review or create site security plan. Check existing security products e.g. locks, fences, commence intelligence log	As 1. + consider upgrading enhanced locks. Review or change signage on site full engagement with local police CID and CRO.	1a. Review / create site security plan, check existing security products e.g. locks, doors. commence intelligence log	As 1a + Consider enhanced perimeter security, enhanced security of entry points for asset (doors, windows etc)
2 nd Breach	2. As 1 + Enhance security locks, consider enhanced lighting, irregular visits to site by staff/security	As 1 & 2 + Consider temporary / permanent alarm system (Type A), security mark assets	2a As 1 & 2 + additional signage to deter offenders,	As 2a+ regular security patrols
3 rd Breach	3. As 1 & 2 + full engagement with local police CID & CRO	As 3	3a as 3 + CCTV/Alarm linked to response force/police further engagement with local CRO	Consider covert monitoring of site with response force/police
4 th Breach	Install high security doors, locks etc in consultation with police	Install high security doors, locks etc in consultation with police + regular security patrols	Install high security doors locks etc in consultation with police	Install high security doors locks etc in consultation with police + regular security patrols

APPENDIX E – CRIME REDUCTION TECHNIQUES EMPLOYED

E.1 A number of new techniques and technologies have recently developed to assist in the fight against metal theft. The following nine paragraphs (E.2 to E.10) highlight techniques recently used by industry partners and police to tackle the issue of metal theft. No full independent assessment has yet taken place of all the techniques mentioned though some success has been seen in reductions and detections of offences. It should also be noted that the following techniques may work in isolation but it is likely that a combination of one or more is the most likely way of them being effective.

E.2 Forensic property marking

There are a number of companies which provide ways of marking property and your local CRO will know who these companies are. The companies can provide a variety of solutions from covert sprays to overt greases and gels and dependant on the risk perceived, the solution will be different for each application. A signage strategy should also back-up the use of the spray or grease. Yorkshire Water have utilised this technique and have reported a 100% drop in offending on their sites.

E.3 Overt and covert CCTV

Closed circuit television (CCTV) is a useful tool for both detection and prevention; however it must be fit for purpose. Overt CCTV must comply with the Data Protection Act 1998 (CCTV Codes of Practice) in that it must be registered with the Information Commissioner's Office and provide images of a quality for the purpose for which it is registered. If overt CCTV is used for surveillance, it may be subject to the Regulation of Investigatory Powers Act 2000 (RIPA) and RIPA (Scotland) 2000. The Acts are legislation which allows for the acquisition of personal data (including CCTV images) and sets out the following in relation to its authorisation regime:

- The purposes for which authorisation may be granted;
- The public authorities that can grant authorisation;
- The rank or grade of the person who may grant authorisation;
- The use that can be made of the information obtained as a result of telephone interception only;
- The arrangements for independent judicial and non-judicial oversight;
- An appropriate legal remedy for individuals.

Covert CCTV may also be subject to RIPA authorisations but detections have been achieved by British Transport Police using low level light CCTV cameras in covert situations on the railway infrastructure.

E.4 Automatic Number Plate Recognition (ANPR)

ANPR can be used to gather intelligence and has been used by police forces in and around scrap yards and at vulnerable sites; it can also be used when engaged in proactive operations around metal thefts. ANPR works by reading the vehicle registration number and from that its previous journeys and locations can be investigated. This might lead to other evidence and intelligence coming to light on the use of the vehicle.

E.5 Trembler alarms

There has been some success with alarms being fitted to cables which are activated when the cable is attacked or tampered with. The alarms can be configured to cover one cable, or a bundle of cables. A message can then be sent via the trembler alarm in either email or SMS form to one or more people or locations. A response can then be made by police or another agency. Virgin Media reported that where an alarm was installed and activated, a police response was made and despite the cable being cut it was not stolen.

E.6 Pins for copper earthing tape

National Grid has suffered with theft of copper earthing tape from one of their sites. As a result a steel pin has been developed which, when inserted through the tape and into concrete, acts like a rawl plug by gripping the side of the hole. The pin will grip even tighter if any attempts are made to remove it.

E.7 Securing cable lids

One of the biggest reasons for loss of cable is the ease with which covers covering cable runs etc. can be removed therefore allowing access to the cables. BT have seen some success with securing of the covers which delays and in some cases, may deter the criminal from stealing cable. Additionally, Virgin Media have welded down pits where in one location, 13 attacks in two months cost £27,845. Since the preventive measures were employed, there have been no attacks with an estimated saving of £4,000 per week in contractor costs

E.8 Taping over cable

Network Rail, has started taping over copper tape at their substations in Sussex by using a fibre glass tape which is then coated in a resin. When removed a residue is left on the negative return straps thereby reducing its scrap value. However it does not affect the performance of the cable over which is it placed.

E.9 Scrap Metal Dealer visits and awareness booklets

Since the rise in metal thefts there has been an upturn in multi-agency and police visits to Scrap Metal Dealers (SMD). Part of this has been for enforcement purposes i.e. checking records of transactions but also to hand out cable identification brochures which may assist with later prosecutions e.g. where the cable has been highlighted to them as belonging to a specific organisation and not to take it in as they may be handling stolen goods. Visiting SMD's is also a task that Neighbourhood Policing Teams (NPT's) can carry out, the benefits of which are two-fold; firstly they can build relationships which is part of the NPT role and secondly, they can enforce the requirements of the Scrap Metal Dealers Act 1964.

E.10 High profile patrols in hotspot areas

By mapping hotspot areas for cable theft, resources can be targeted to patrol those locations looking for any suspicious activity in and around the area. This can be clothing or other indications left on fencing or graffiti painted onto infrastructure, all of which have previously been used to give an indication of valuables at the location worth targeting.

APPENDIX F – GOVERNMENT AND ENFORCEMENT AGENCIES FOR METAL THEFT

- F.1 The Act concerning the regulation of scrap metal dealerships is “The Scrap Metal Dealers Act 1964” (SMDA). Scrap metal dealers are required to register with their Local Authority under the SMDA. The SMDA also requires that details of all transactions are recorded in a book/bound volume. This includes the name, address and vehicle registration number of all suppliers, whether businesses or members of the public. Sales to customers must similarly be recorded. The lead government area for the SMDA is the Home Office Crime Strategy Unit with the line unit Business Crime Team.
- F.2 As regards representing the business interests at government level for the electricity, gas, recycled metals and telecommunications area, these sectors fall to the Department of Business, Enterprise and Regulatory Reform (BERR). DEFRA represent the water industry.
- F.3 Enforcement is via the police (Home Office) and the Local Authority. The lead department for the Local Authorities is the Department for Communities and Local Government (DCLG). The enforcement delivery chain is therefore shared between the Home Office and the DCLG.
- F.4 If operating a site, in addition to being registered under the SMDA, metal recyclers must also hold an Environment Agency Waste Management Licence or exemption. Under the Waste Management Licensing arrangements, licensed site operators need to comply with the following regulation areas:
- European Union End of Life Vehicle Directive Requirements (ELVD). This only applies if handling scrap vehicles otherwise it is not required.
 - European Union Waste Shipments Directive Requirements (EWSR) transposed in the UK by the Transfrontier Shipment of waste Regulations 2007.
 - Waste Carriers Licensing Regime (WCLR).
Therefore if the Scrap Metal Dealer (SMD) is making the onward transfer of scrap metals to a steel works, foundry, smelter or export dock, the SMD or the hauler would need to hold a Waste Carriers License. If the SMD is the exporter, they must obtain the appropriate documentation under the waste shipment regulations. There are other associated Acts related to environment, namely:
 - Environmental Protection Act 1990 (EPA)
 - Clean Air Act 1990 (CAA)
- F.5 Those companies exempt from Waste Management licensing are still regulated. They have to meet certain standards to qualify for exemption however they are under lighter regulation. They may also have to comply with the other regulations as necessary.
- F.6 The Environmental lead government area which is responsible for legislation in these areas is the Department for Environment & Rural Affairs (DEFRA). The lead government area for the environmental areas is DEFRA, and within DEFRA the relevant department is the Waste Licensing Unit. The enforcement for these areas is via the Environment Agency.
- F.7 The British Metals Recycling Association (BMRA) is the trade organisation for SMD’s. Scrap metal thefts have been a significant problem for some time. Those affected include local communities and public utilities, but also the scrap industry itself which experiences frequent thefts from its sites and transport. It is therefore in the industry’s interests to do what it can to prevent the problem.
- F.8 A position paper produced by the BRMA, the trade body that represents the UK scrap industry outlines action that the industry is already taking. This includes a “stolen metals bulletin”, a theft alert service which notifies all BRMA members of metal known to be stolen, within 24 hours of notification. The position policy and the alert service can be accessed at <http://www.recyclemetals.org/stolen.php> The BMRA are

concerned about the trade at unregistered/unlicensed dealers and would support action against such operators.

British Metals Recycling Association,
16 High Street, Bampton, Cambridgeshire PE28 4TU
01480 455249

admin@recyclemetals.org

APPENDIX G – OPERATION PRECIOUS (THAMES VALLEY POLICE)

G.1 The method behind Operation Precious is that each Neighbourhood nominates a local lead who will be responsible for:

- Collating how many yards are on the Neighbourhood. How many are registered and where they are.
- Making contact with key partners to develop a partnership approach.
- Categorising the yards using the **RED AMBER GREEN** system to determine the visit regime to the yards.
- Prepare a plan of the yard – what is stored where etc., this would help if there was a need to conduct an operation on the yard.
- Establish how the yard operates.

G.2 The first visit must be by arrangement. This could be a lengthy process and the ethos behind Operation Precious is working with the trade not against them:

- What do they deal in – general scrap, vehicles or something specialist.
- What do they do with the metal – break it and sell it locally or grind it in preparation for export etc.
- Who do they have business links with – where does the metal go when they sell it on.
- How do they manage their administration:
 - Who does the administration
 - What training has that person received
 - Who books in received metal
 - Is the administration system computer or paper based – can the local lead, understand it.
 - What is the procedure (who and how) for moving the metal through the yard from receiving it to subsequent disposal, and maintaining continuity of identification.
 - How do they categorise and identify the property – does this existing procedure help with due diligence.
- Developing the concept of the 'Responsible Trader'

G.3 Having established how the yard operates actively encouraging them to adopt a 'due diligence' approach in their working practices:

- Encourage the yard to prominently display the 'Operation Precious' code of conduct purchase sign.
- Encourage the yard to sign up to the 'Operation Precious' Charter
- Encourage the procedure of only accepting metal from people who can produce acceptable photo ID such as Driving Licence or Passport.
- Encourage the yard to display the 'Important notice to customers' sign in the yard office
- Undertaking yard checks, as per the visiting criteria R A G using the pro-forma
- Ensuring any intelligence is fed into the intelligence system in accordance with the NIM

G.4 Visiting criteria – R.A.G. - Site Visit Colour – Code Matrix

GRADE	CRITERIA FOR GRADE	FREQUENCY OF VISITS
RED	Intelligence about them accepting stolen metal (either knowingly or because of poor work practices).	Subject to operation together with partner agencies – followed by a visit every two weeks.
AMBER	Appear to be poor in completing the correct paperwork or no paperwork seen on the most recent police visit.	Visits by LPA Lead/Neighbourhood team – once a month.
GREEN	No current concerns.	Visits by relevant Neighbourhood team every 3 months.

G.5 'Operation Precious' - Yard sign (PAGE 35)

The sign will be the public statement of how the business supports 'Operation Precious' and how it will operate a system of due diligence. The sign will overtly state that the yard will not consider receiving any metal that could be regarded as stolen or otherwise suspicious.

Use of the sign:

- They will be made of substantial and resilient material, A3 in size and ideally 2 per yard.
- They should be prominently located near the entrance to the yard and near the yard office or other places where the public can see them.

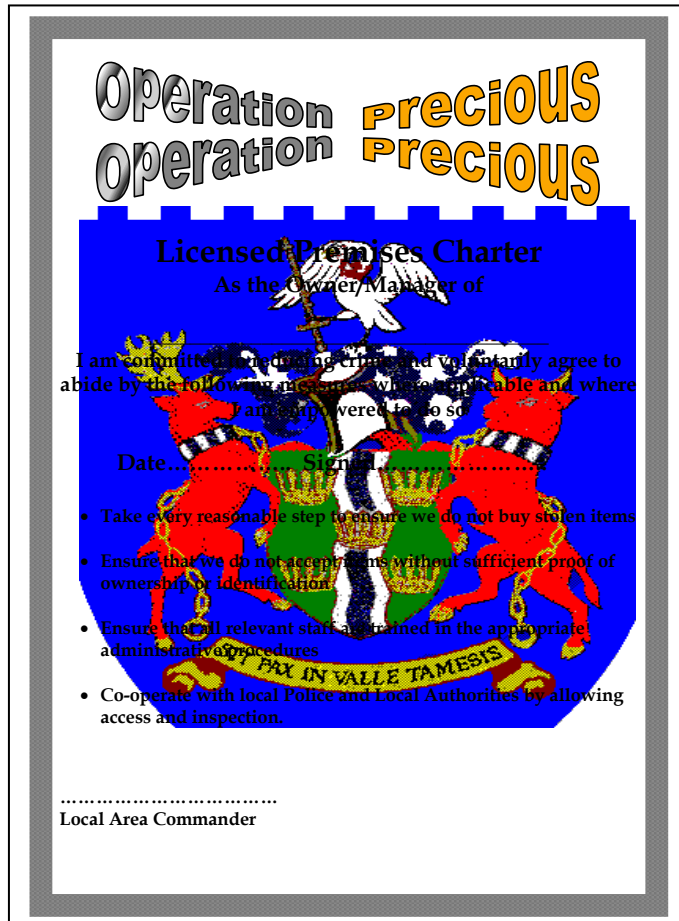


G.6 Operation Precious Charter (PAGE 36)

This is a written undertaking publicly expressing the working relationship between the business, the police and local partners to jointly tackle the issue of theft of metal.

Use of the Charter:

- It is to be printed on high quality paper and either laminated or placed in a frame provided by the LPA.
- Signed by the owner/operator of the yard and the current LPA commander.
- Accompanied with local media support. This is a good PR opportunity to keep the profile of metal theft high.
- Displayed prominently in the yard office where the public can clearly see it.
- If the yard is found to be in breach of the ethos of 'Operation Precious' the charter and the signage will be removed.



Important Notice to Customers

To be displayed prominently in the yard office



Operation Precious
Operation Precious

IMPORTANT NOTICE TO CUSTOMERS

This yard is supporting Thames Valley Police and **XXXXXX XXXXX Council** to reduce the theft of metal. In order that satisfactory identification of traders can be made, it is now a requirement that ALL persons bringing/trading in scrap metal or vehicles on these premises must provide the following items for identification purposes.

1. Passport or drivers licence with photo card.
2. Current address details. (i.e. a utility bill or company stationary with details that match the details given above)

If a vehicle is to be scrapped then the V5 document must be produced with proof of ownership.

PLEASE NOTE:

**IF NONE OF THIS INFORMATION IS MADE
AVAILABLE, WE WILL NOT BE BUYING
YOUR SCRAP/VEHICLE**

Thank you for your understanding and co-operation

Yard visit pro-forma

The pro-forma is to be completed by the person visiting the yard. Copies are to be retained by the Neighbourhood lead and the Licensing Authority.

SITE VISIT FORM

All entries to be printed

Date of Visit

Name Of Premises

Address

Tel No:

Website Address
(if applicable)

Company Director(s)
and Management Details

Other Staff Details

Books/Records kept. If
yes what format are they
kept (paper or computer)

Quality of records kept –
metal received
(please check at least 5
records and tick if
information is recorded
and leave blank if
information is missing)

The description and weight of the
metal.

The date and time of receipt of the
metal.

If the metal is received from another
person the name and address of
that person

The price of the metal if it has been
ascertained at the time the entry is
made in the book.

If no price has been ascertained,
the estimated value of the scrap
metal.

The registration mark of any
mechanically propelled vehicle used
to deliver the scrap metal.

Quality of records kept –
metal processed or
dispatched
(please check at least 5
records and tick if
information is recorded
and leave blank if
information is missing)

The description and weight of the
metal.

The date of processing or
dispatch, and in the case of
processing, the process applied.

Where scrap metal is dispatched
for sale or exchange, the name and
address of the person to whom it is
sold or with whom it is exchanged
and the consideration for which it is
sold or exchanged

Where scrap metal is dispatched or
processed other than for sale or
exchange, its estimated value

before being dispatched or
exchanged.

Quality of records kept –
any issues

Type of metals bought
(be specific)

Where are metals sold
onto?
Names of other scrap
metal dealers required
and any Haulage firms
used.

Company vehicle VRN's

What security
arrangements are there
(CCTV, guard dogs etc)

Does the company own
a macerator/granulator
or smelter (state which)

Does the company hold
carriers and
exemption/carriers
licenses (state which
and licence numbers)?

Does the company deal
in cash or part cash
transactions?

How would you describe
the co-operation and
assistance of the
management?

Any improvements or recommendations that can be made to the company?

Persons conducting visit
- police and partners

Appendix H

Glossary of terms and abbreviations

ACPO	<i>Association of Chief Police Officers</i>
AIB	<i>Area Intelligence Bureau</i>
ALO	<i>Architectural Liaison Officer</i>
ANPR	<i>Automatic Number Plate Recognition</i>
ASBO	<i>Anti Social Behaviour Order</i>
AVCIS	<i>ACPO Vehicle Crime Intelligence Service</i>
BCU	<i>Basic Command Unit</i>
BERR	<i>Business, Enterprise and Regulatory Reform</i>
BMRA	<i>British Metal Recycling Association</i>
BTP	<i>British Transport Police</i>
CAA	<i>Clean Air Act 1990</i>
CDRP	<i>Crime Disorder Reduction Partnerships</i>
CHIS	<i>Covert Human Intelligence Source (Informant)</i>
CNI	<i>Critical National Infrastructure</i>
CPI / SBD	<i>ACPO Criminal Prevention Initiatives Team /Secured By Design</i>
CPS	<i>Crown Prosecution Service</i>
CRO	<i>Crime Reduction Officer</i>
DCLG	<i>Department for Communities and Local Government</i>
DEFRA	<i>Department for Environmental & Rural Affairs</i>
DVLA	<i>Driver and Vehicle Licensing Agency</i>
ELVD	<i>European Union End of Life Vehicles Directive Requirements</i>
EPA	<i>Environmental Protection Act 1990</i>
EWSR	<i>European Union Waste Shipments Directive Requirements</i>
HIAB	<i>HIAB is a lorry with a crane attached to it so it can lift a certain amount of weight on the back of its bed without a forklift or telehandler.</i>
HMRC	<i>Her Majesty's Revenue and Customs</i>
HO	<i>Home Office</i>
HOSDB	<i>Home Office Scientific Development Branch</i>
LA	<i>Local Authority</i>
MICAF	<i>Mobile Industry Crime Action Forum</i>
MO	<i>Modus Operandi</i>
MOU	<i>Method of Understanding</i>
OCG	<i>Organised Crime Group</i>
PNC	<i>Police National Computer</i>
POCA	<i>Proceeds Of Crime Act</i>
RIG	<i>Regional Intelligence Group</i>
RIPA	<i>Regulation of Investigatory Powers Act 2000</i>
RIU	<i>Regional Intelligence Unit</i>
SMD	<i>Scrap Metal Dealer</i>
SOCA	<i>Serious Organised Crime Agency</i>
SPOC	<i>Single Point Of Contact</i>
TOC	<i>Train Operating Company</i>
VOSA	<i>Vehicle and Operators Services Agency</i>

WCLR

Waste Carriers Licensing Regime