

John Good Ltd

Environmental Handbook

November 2009



 **john good**
communicating the arts

I	INTRODUCTION	3
1.1	What is the Environment All About	3
1.2	Environmental Issues	3
	Pollution	3
	Water Pollution	3
	Smog	4
	Acid Rain	4
	Solid Waste	4
	Resource Depletion	4
	The Ozone Layer	4
	Global Warming	5
2	WHAT DOES THIS MEAN TO JOHN GOOD?	6
2.1	Resources	6
	How does this affect John Good?	6
	What do we want to achieve?	6
2.2	Energy	6
	How does this affect John Good?	7
	What do we want to achieve?	7
3	SPECIFIC ARRANGEMENTS IN JOHN GOOD	8
3.1	Spillages and Disposal of Waste Materials	8
	Spillages	8
	Disposal	8
3.2	Vehicle Operations	9
3.3	Waste Control	10
	Controlled Waste	10
	Hazardous Waste	10
	Electrical Waste	11
	When you have waste	11
	How we dispose of waste	11
3.4	Suppliers and Contractors	12
3.5	Our Local Environment	12
3.6	Continuous Improvement	12

I INTRODUCTION

This Environmental Handbook highlights some of the major environmental problems facing the earth and some of the measures that can be taken to slow them down. There is no such thing as a quick fix to the environment but there are lots of small things we can do in our daily lives to help.

This handbook is in three sections, the first explains what some of the major environmental issues are and how they have come about. The second section looks at a selection of measures that have been introduced, at different political levels, to manage or deal with them in a constructive manner. The third section concentrates on how these issues affect John Good and its operations. This is a handbook for general information to raise awareness and which does not replace specific procedures and standing instructions developed for each area of our business as part of the ISO14001, environmental management system project.

I.1 What is the Environment All About

The term 'Environment' refers to everything around us - that is the air, water and land as well as the living plants and animals. The environment is a complex system within which all the different elements are interrelated. It can be thought of as a spider's web - if one of the strands is damaged the whole stability of the web is affected. For example, if something affects the water, this in turn will affect the plants, which may affect the animals and so on.....

I.2 Environmental Issues

Pollution

The term pollution refers to the release of anything into the environment in quantities that cause harm. Almost anything can be considered a potential pollutant if there is too much of it - including noise and smells - as well as the more commonly thought of problems with chemicals etc. This does not always mean a big 'one off' release – small, continuous releases of a substance can be a pollution problem if the local environment cannot cope.

The environment is not neatly divided into the separate compartments of air, water and land so pollution problems will generally affect more than one. The issues described below look at some of the major problems:

Water Pollution

Inland waterways may become polluted by inadequately treated sewage and agricultural or industrial chemicals. Ground water can be contaminated by petrol and other harmful chemicals that have been allowed to leak from storage tanks or containers.

Smog

The term smog is now used to describe the pollution haze that tends to hang over cities - especially during the summer. This photochemical smog is produced by a chemical reaction that occurs in the presence of sunlight. Various gases including Nitrogen Oxides (NO_x) and Volatile Organic Compounds (VOCs in the form of burned petrol) can form a haze, which includes low-level ozone that will sit over a town or city in sunny weather. The motor vehicle is responsible for a large proportion of the VOCs and the NO_x, which is why conditions are far worse in the cities. The formation of ozone at ground level can be a major health problem as it can irritate eyes, nose, throat and lungs and is especially hazardous to people with chest or lung problems.

Acid Rain

Rain is naturally slightly acidic, however, emissions of sulphur dioxide, carbon dioxide and oxides of nitrogen are combining with the water vapour to make the rain more acidic. The main source of these emissions is the burning of fuels such as gas, coal and oil. Another large source is road vehicles, when they burn petrol or diesel. Acid rain directly contributes to the destruction of trees, forests and lakes by changing the chemical balance of the natural environment and by making nutrients unavailable to the plants.

Solid Waste

We all dispose of waste! We are part of a 'throw away society' and happily chuck things in the bin - but that's not the end of it, it has to go somewhere. Every year billions of tonnes of rubbish are dumped into holes in the ground - rubbish that can be recycled, used as a raw material or as a fuel to produce energy - precious resources would be conserved and pollution could be reduced. Waste disposal is becoming a bigger and bigger problem for business in the UK. Suitable disposal sites are running out and stricter environmental controls and legislation are significantly increasing the costs.

Resource Depletion

Everything we do and buy takes energy and raw materials. Many of the earth's resources are finite; once they are used up they can never be replaced. Renewable resources, such as timber, must not be over exploited if the stocks are to remain viable for future generations. Some delicate habitats, such as peat bogs or tropical rain forests, will take many hundreds of years to fully recover if they are over cut or severely damaged.

The Ozone Layer

This layer is found in the Stratosphere between 10 and 50km above the ground. It is a layer of gas that filters out harmful ultra violet rays from the sun, protecting plant and animal life. These ozone molecules are so thinly distributed throughout the stratosphere that if they were collected together they would form a layer no thicker than an orange skin around the earth! Evidence is accumulating to show that this thin protective layer is getting thinner and in certain places, at specific times of the year, it has holes in! This is a concern since increased levels of ultra violet light can cause skin cancer in animals, including humans, and adversely affect plant growth.

The increased rate of thinning is blamed on the escape of manufactured chemicals into the air, in particular Chlorofluorocarbons (CFCs). These have been used in aerosols and as refrigerants. There are many ozone depleting chemicals and other commonly used solvents.

Global Warming

The potential rise in the earth's temperature - as a direct result of human activity, leads to the concept of global warming. Certain gases, that are naturally present in the earth's atmosphere, help to trap the sun's heat. Without this protective layer the surface temperature of the earth would be very much lower than it is now. These gases, also known as 'greenhouse gases', have increased in concentration as a result of human activity - especially since the Industrial Revolution when the demand for energy increased. Higher concentrations of carbon dioxide and other greenhouse gases could lead to some abrupt changes in global weather patterns. It could also lead to rising sea levels if the warmer temperatures start to melt the ice caps.



2 WHAT DOES THIS MEAN TO JOHN GOOD?

2.1 Resources

Everything we do and buy requires the use of energy and raw materials. Many of the earth's resources such as gas and oil, are finite and once used they are never replaced. Renewable resources, such as timber, must not be over exploited if they are to remain viable for future generations. By shifting purchasing choices toward 'sustainable' or recycled goods wherever possible, the finite life of the other resources can be extended. Also, through careful selection at the time of purchase, it is possible to reduce or eliminate products, which are potentially difficult to dispose of.

How does this affect John Good?

Our company activities mean the use of everything from consumable items of stationery through to large amounts of material as well as the use of chemicals in the printing process. The purchasing of other products has to be based on a range of factors including the reliability of the supply, price and suitability for the job etc. The challenge is to try and include environmental impacts as a key factor into this decision making process. This can be done in a series of steps, the first of which will be to identify all the suppliers and then prioritise the ones to be approached first. Another method, that can be used when assessing new suppliers, is to ask about environmental policies.

What do we want to achieve?

By choosing resources carefully and reusing and recycling as much as possible John Good can help to 'close the loop' and extend the life of the finite materials. This will not be possible for all materials, but where it can be encouraged John Good should actively support and encourage the reuse of materials and equipment. If we can all think before we use any resources and decide whether it is really necessary, we can reduce our consumption of energy and materials. Suggestions from any employee will be welcomed.

2.2 Energy

One of the biggest environmental problems affecting the earth is the impact of Global Warming and the consequent changes to the weather systems. Global Warming is the name given to a whole range of impacts that result from changes in the composition of gases in the earth's atmosphere. One of the contributing gases, carbon dioxide (CO₂), is released when any fossil fuel is burned. Approximately 80% of the carbon dioxide released into the atmosphere comes from fossil fuels being burned in one way or another to produce energy. This can include electricity generation in a coal or gas fired power station and the burning of petrol and diesel in a car. At John Good the main sources of carbon dioxide emissions are from the consumption of energy used to heat, light and run equipment and machinery and from the use of motor vehicles.

How does this affect John Good?

The main uses of energy in the buildings is for heating, lighting and running production equipment, photocopiers, computers and in vehicle usage including business use as such operational transportation, other business related mileages and of course travel too and from work. The energy used in buildings, such as ours, accounts for about 50 % of the total CO₂ emitted in the UK.

What do we want to achieve?

By carefully monitoring the consumption of energy in our buildings and by introducing energy saving measures we will be able to demonstrate a reduction in consumption. We will be monitoring resource usage including energy and introducing initiatives to improve our performance.

However, everyone can help in some very straightforward ways:

- Switch off equipment not being used including compressors and monitors/VDUs/printers which still use energy on standby
- Having the heating on and doors or windows open is like throwing money out of the window
- If you don't need to print a document, don't. Recycle any used documents
- Turn lights off if not needed
- When buying we need to consider the environmental impacts – can the product be reused or recycled and if not can it be disposed of in an environmentally friendly manner?
- Reduce waste – if we can avoid waste the first place, even better
- Consider and put forward suggestions for improvement
- Vehicle use has an impact – we need to consider how this impact can be managed and ideally reduced
- We should reduce or eliminate the use of chemicals where suitable alternatives exist



3 SPECIFIC ARRANGEMENTS IN JOHN GOOD

3.1 Spillages and Disposal of Waste Materials

Spillages

- All spillages must be contained in the immediate area using the spill containment procedures and spill kits provided. Although it is everyone's responsibility to ensure that every precaution is taken to ensure spillages and leaks do not occur, an Emergency Response Team shall exist. Trained to do so, it will be their responsibility to attend spillages and prevent spread and potential pollution.
- All spills must be reported to the Commercial Director.
- Under no circumstances shall substances or chemicals (even diluted) be flushed away down drainage channels, into drains or into any water system unless clearly described as acceptable within John Good's environmental procedures.
- In the event of a spill, the Commercial Director or deputy will make an inspection, assess the situation and, in the event of potential leakage into the surface drainage/sewerage system, will advise both the Environment Agency and the Water Authority as appropriate.
- Used spill kits and absorbent material must be disposed of in the appropriate manner according to the nature of the spill and the COSHH and supplier data sheets. Spill kits shall be maintained.



Disposal

- Every item of waste John Good generates has a specific way in which it must be disposed of. Please ensure the correct method is used and query if in doubt with your manager or the Commercial Director. **Only** use the correct container for the correct waste item.
- No solid materials or liquid materials may be flushed away in sinks.
- The site must be maintained in a clean and tidy state.

3.2 Vehicle Operations

All motor vehicles produce carbon dioxide, a significant greenhouse gas, in proportion to the amount of fuel they use. In our drive for environmental improvement, any business related travel including deliveries should wherever practical and reasonable, consider the following points:

- Plan ahead minimising journeys and sharing vehicles to minimise mileage wherever possible
- Slow down - driving at slower speeds really does cut consumption. At 70mph up to 30% more fuel is used than at 50mph in a car.
- Think ahead - significantly more fuel is used if drivers make racing starts or have to "slam on the brakes". Accelerate gently, change gear early and smoothly and anticipate to avoid sharp braking. Foot off the 'gas' leading up to junctions and lights, makes a difference!
- 'Lose weight' by not carrying unnecessary weight in the vehicle. It uses extra fuel when accelerating or climbing a hill. Cut down wind resistance wherever possible.
- Switching of the engine off when stuck in traffic for a long time. Prolonged and unnecessary idling is zero miles per gallon. It is also against the law to leave the engine running for extended periods of time when stationary.
- Company vehicles will be subject to routine checks and kept properly tuned and serviced at all times to reduce consumption and emissions. There are some routine checks every driver should do:
 - Check tyre pressures. Under inflated tyres cause drag, wear and can be dangerous
 - Check on engine condition, monitor your fuel consumption between refills
 - Check oil and other fluid levels

3.3 Waste Control

John Good's operations generate a wide range of waste streams and the cost of disposal is high. We currently generate tonnes of waste every year with disposal costs becoming increasingly high. It is therefore essential we all understand our role in reducing waste but also ensuring the waste we do generate is handled correctly.

The following types of waste are generated by John Good:

Controlled Waste

As commercial or industrial waste, 'controlled waste' can be from a school, shop, office, factory or any other trade or business. It may be solid or liquid, scrap metal or even a scrap car. It does not have to be hazardous or toxic to be a controlled waste. As a business John Good must ensure controlled waste is also disposed of effectively and through licensed waste disposal companies. Wherever possible, we must reduce the amount of waste going to landfill – if it can be reused or recycled we should. Doing so saves John Good money and helps in reducing our environmental impacts. Please ensure you are familiar with the correct disposal method even prior to disposal – we have clearly detailed all of John Good's waste streams and who is authorised to dispose of them.

Hazardous Waste

These are the more dangerous wastes; they include hazardous and toxic substances and are listed in the Hazardous Waste Regulations. Some examples may include:

Ink tins	Batteries
Light tubes/bulbs (may be WEEE – see below)	Waste oils
Industrial solvents	Aerosols
Press waste chemistry	Display screens

It is **essential** that hazardous waste does not end up in any controlled/general waste and everyone in John Good has a responsibility to ensure waste streams are adhered to. John Good will make clear what the correct waste streams are – if in doubt, please shout! Check with your manager or the Commercial Director.

Hazardous waste requires a Hazardous Waste Consignment Note and may only be carried out by waste companies with the authority from the Environmental Agency to carry and process hazardous waste.

Electrical Waste

John Good must ensure all electrical waste such as PCs, display screens, microwaves, small components and electrical cabling is disposed of through a licensed and an environmentally sound manner and retain documentation to prove so. We also have a reuse scheme for working computer equipment, which ensures the equipment gets a second life rather than disposed of and saves on costs. Such items **must** not be put into any other waste stream – designated areas will exist. However, for all items purchased after August 2005, provided that an equivalent item is purchased to replace the item, the original supplier must offer a take back option inline with the Waste Electrical and Electronic Equipment Regulations (WEEE).

Therefore when you are disposing of or buying replacement electrical equipment please ensure that you ask the supplier. We may be able to save money in disposal costs – don't pay twice!

When you have waste

- Make sure it is secure and labelled, if its identity is not clear
- Make sure it is stored or disposed of in the designated suitable containers – do not put elsewhere and if in doubt, check with your manager or the Commercial Director
- When we give waste to someone else, we must check they have authority to take it. The law says the person you give waste to must be authorised to take it. Check if in any doubt.

How we dispose of waste

We have a contract for regular collections, using a licensed carrier, who raises Waste Transfer Notes to cover repeated transfers of the same waste, to the same place.

For hazardous waste, authorised John Good staff contact a licensed carrier, advising them the type and quantity of the waste, the carrier raises a Hazardous Waste Consignment Note and gives a collection date. When the waste is to be collected, the carrier must agree with us that the information on the Consignment Note is correct. The carrier will complete the Consignment Note. A responsible person in our company must complete and sign the Consignment Note. We must keep a copy of the Consignment/Transfer Notes and retain on file for three years.

3.4 Suppliers and Contractors

As part of our responsibility and duty of care, John Good will review the performance of its key suppliers in terms of their environmental performance. For those who handle our waste we will conduct duty of care audits to ensure their compliance.

When making buying decisions, please consider the environmental impacts:

- Are similar services and products available more locally for example?
- Can the product be reused or recycled at the end of its life?
- Is the product degradable?
- What are the environmental impacts of the purchase?

3.5 Our Local Environment

It is our policy that we minimise the impact of our operations upon the local environment. To that end we expect the following:

- All employees are considerate to the local environment and the people that live or work in the area
- Enter our sites in a considerate and safe manner observing road traffic laws and company practice
- Reduce noise and light pollution wherever possible
- Conduct any operations which generate noise only during defined operating hours

3.6 Environmental Management and Continuous Improvement

The Board shall be responsible for setting and approving John Good's policies toward Environmental matters. These policies will be published internally for all to see within John Good but also publically to the external community. As part of our Environmental Management System, we are also constantly seeking to improve our environmental performance. We will set ourselves clear objectives for improvement in key areas and actively encourage input from everyone in this. We shall review our systems critically on a regular basis those reviews engaging all levels of our organisation.

If you have a suggestion or idea, please do discuss with your manager or the Commercial Director. A suggestion scheme also exists – anyone having ideas or suggestions for improving the company's environmental performance should raise them with the Commercial Director or your environmental 'champion'.

We can all make a difference...