

SITE SAFETY PLUS

Scheme rules – Appendix J

Site environmental awareness training scheme (SEATS)



SEATS
2019

Site Safety Plus

Site environmental awareness training scheme (SEATS)

Course appendix J

1.	Introduction	3
2.	Aims and objectives	3
3.	Entry requirements	3
4.	Assessment	3
5.	Delegate numbers	4
6.	Course duration and attendance	4
7.	Progression	4
8.	Course publications and materials	4
9.	Exercise 1: Source–Pathway–Receptor	5
10.	Exercise 2: Ecology	6
11.	Exercise 3: Contaminated land	7
12.	Exercise 4: Waste management	8
13.	Exercise 5: Pollution prevention	9
14.	Exercise 6: Pollution prevention continued	10
15.	Exercise 7: Statutory nuisance	11
16.	Exercise 8: Archaeology and heritage	12
17.	Exercise 9: Responsible contractor	13
18.	Notes to training providers	14
19.	Suggested timetable	15
20.	End of course examination rules	18
21.	Tutor requirements	18
22.	List of abbreviations	19

1. Introduction

This one-day classroom based course will provide delegates with an introduction to environmental issues on construction sites.

It is designed to meet the basic environmental knowledge that the sub-contract chain are required to prove to major contractors.

2. Aims and objectives

2.1. Aims

The delegate will gain knowledge and understanding in:

- what is meant by the term 'environment'
- how to deal with archaeology and heritage on a construction project
- effective waste management
- pollution controls, and why the environment should be protected
- the use of environmental management systems
- why it is important to be a good neighbour and responsible contractor.

2.2. Objectives

At the end of the day delegates will be able to:

- understand the need to protect the environment
- implement environmental management systems into the management of the site
- have an understanding of the impact archaeology and heritage can have on a site
- identify the principles of the good neighbour initiative
- appreciate the need to be a responsible contractor

3. Entry requirements

There are no formal entry requirements for this course; however, it has been developed for construction supervisors and this should therefore be considered before enrolling delegates on to this course. Delegates must be competent in English at site supervisor level.

4. Assessment

Assessment will be by multiple-choice questions at the end of the course. It is also expected that delegates interact during the course.

5. Delegate numbers

The minimum number of delegates per course is 4. The maximum number of delegates per course is 20. These minimum and maximum delegate numbers are not subject to an appeal.

6. Course duration and attendance

This is a one-day classroom based course. Delegates are required to complete the full course (7 hours) to be eligible for certification.

7. Progression

There is no direct progression from this course. However, the Site Environmental Advanced Training Scheme Plus (SEATS+) e-learning course is recommended, should a more in-depth understanding be required.

8. Course publications and materials

8.1. Course publications

- *Construction site safety – The complete guide* – Book E: Environment (GE700) Mandatory
- Case studies – *Site environmental awareness training scheme* (SEATScs1 OR SEATScs2) Mandatory
 - Case Study 1: Factory and ancillary buildings (SEATScs1)
 - Case Study 2: House building (SEATScs2)

8.2. Suggested course materials

The following pages contain the suggested course exercises and the recommended format for the nine exercises. These exercises are designed to be reproduced by the training provider for each delegate.

List of exercises:

- Exercise 1: Source – pathway – receptor
- Exercise 2: Ecology
- Exercise 3: Contaminated land
- Exercise 4: Waste management
- Exercise 5 and 6: Pollution prevention
- Exercise 7: Statutory nuisance
- Exercise 8: Archaeology and heritage
- Exercise 9: Responsible contractor

9. Exercise 1: Source–Pathway–Receptor

9.1. Aim

To enable delegates to develop techniques to identify environmental hazards.

9.2. Learning objectives

By participating in this exercise, delegates should be able to recognise and understand the ways in which a hazardous material can enter the environment. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

9.3. Exercise method

Task 1

Small groups should be formed, of perhaps three or four delegates. Each group should be issued with the source–pathway–receptor exercise cards. The cards consist of five sources, five pathways and five receptors. Each group should be given ten minutes to order the cards to show how each source can use a pathway to interact with the environment. Groups should be offered help to complete this task.

Learning points

Although the slides show a correct answer, there are many ways in which the sources can enter the environment through the given pathways. Reassure delegates that there are many answers that are correct, and that the exercise was designed to show that there are many potential pollution sources and pathways, and ways in which they can interact with the environment.

Task 2

The same groups should then be shown the picture exercise. This time each group has ten minutes to identify multiple sources, pathways and receptors for this typical project. At this stage, they will not need to consider control measures. The tutor will note down on a flipchart all the identified source–pathway–receptor sets.

Learning points

There are many potential environmental incidents associated with construction work, and most are easy to identify. The use of source–pathway–receptor identification makes it easy to identify problems on site. Measures can then be implemented to remove the source, block the pathway or move the receptor.

10. Exercise 2: Ecology

10.1. Aim

To enable delegates to identify ecological issues applying to site practice.

10.2. Learning objectives

By participating in this exercise, delegates should be able to identify elements of ecology affecting work on construction sites. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

10.3. Exercise method

Small groups should be formed, of perhaps four or five delegates. Each group should be issued with the appropriate case study pack. The exercise should take a maximum of 15 minutes. Delegates are to familiarise themselves with the case study project and think about any issues relating to animal, plants and habitat that may have to be considered prior to the commencement of the project. Each group should briefly report its findings.

Learning points

On a real site, issues of ecology would be identified by site survey, planning permission, etc. However, on sites where this has not been done, supervisors would need to be aware of the potential for discovery of animals, plants or habitats.

11. Exercise 3: Contaminated land

11.1. Aim

To enable delegates to identify possible contaminated land issues.

11.2. Learning objectives

By participating in this exercise, delegates should be able to identify the possible presence of contaminated land on construction sites. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

11.3. Exercise method

Delegates should return to their case study groups. The exercise should take a maximum of ten minutes. Delegates are to consider any issues detailed in the case study which may lead to contaminated land being discovered. Each group should briefly report its findings.

Learning points

On a real site, issues of ecology would be identified by site survey, planning permission, etc. However, on sites where this has not been done, supervisors would need to be aware of the potential for discovery of animals, plants or habitat.

12. Exercise 4: Waste management

12.1. Aim

To enable delegates to develop cost effective ways of dealing with waste.

12.2. Learning objectives

By participating in this exercise, delegates should be able to identify elements of construction waste that can help reduce waste costs to a project. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

12.3. Exercise method

Task 1

Small groups should be formed, of perhaps three or four delegates. Each group should be issued with the waste exercise cards. The cards consist of sixteen types of waste typically found on construction sites. Each group should be given ten minutes to identify *inert*, *non-hazardous* and *hazardous materials*. Explain the definitions if necessary:

- 'Inert' would be unreactive: it will not rot or decompose.
- 'Non-hazardous' would react with its surroundings but does not contain dangerous substances.
- 'Hazardous' would be in some way dangerous: this will be dealt with in detail later.

Learning points

Most delegates will have misconceptions of the relative level of hazard of some types of waste. This exercise gives an opportunity to dispel them. Also, the exercise allows discussion of the segregation of categories of waste so as to be able to reduce the level of landfill tax that may be charged on its disposal.

Task 2

The groups should reform. Using the waste exercise cards, each group has ten minutes to devise the most cost efficient method of waste segregation. They should divide the cards into appropriate piles of materials that can be mixed. For the purposes of the exercise there is no limit to the amount of space available for segregation on site.

Learning points

There is no correct answer; best practice would depend on available space on site, local recycling facilities and the requirements of waste management contractors. Discussion will reinforce the learning taking place about the nature and cost/value of waste.

13. Exercise 5: Pollution prevention

13.1. Aim

To enable delegates to develop techniques to identify environmental hazards and appropriate risk reduction measures.

13.2. Learning objectives

By participating in this exercise, delegates should be able to recognise and understand the ways in which a hazardous material can enter the environment, and use that knowledge to reduce the environmental risk associated with those hazards. This is not an assessed exercise, but the group should be observed to ensure that they have understood the information.

13.3. Exercise method

The exercise should take a maximum of ten minutes. The whole group should be brought together for the discussion. Using the source–pathway–receptor identification exercise from exercise 2, in module 4, use the flipchart with the combined responses from the groups. Ask how in each case the source, pathway or receptor could be modified to reduce the risk of an environmental incident. Ask what would be the minimum requirement for legal compliance. Ask whether more could justifiably be done to achieve best practice.

Learning points

The group should use its combined site knowledge and the information gained in the earlier sessions to consider the sources, pathways and receptors previously identified, and provide ideas on how to minimise their potential effect on the environment. This can be done by considering what measures are appropriate to the identified sources, pathways and receptors.

14. Exercise 6: Pollution prevention continued

14.1. Aim

To enable delegates to identify possible pollution hazards on site.

14.2. Learning objectives

By participating in this exercise, delegates should be able to identify the possible pollution sources, pathways and receptors encountered during work on construction sites. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

14.3. Exercise method

Delegates should return to their case study groups. The exercise should take a maximum of twenty minutes. Delegates are to consider any issues detailed in the case study which may lead to pollution incidents. Delegates are to identify drainage issues and any high risk materials that are likely to be used, and to prepare the best storage options. Each group should briefly report its findings.

14.4. Learning points

Delegates will be able to consider the interaction between elements of the environment and the construction process. They will identify key site-wide issues and develop appropriate control measures.

15. Exercise 7: Statutory nuisance

15.1. Aim

To enable delegates to identify possible statutory nuisance issues on site.

15.2. Learning objectives

By participating in this exercise, delegates should be able to identify possible causes of statutory nuisance on construction sites. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

15.3. Exercise method

Delegates should return to their case study groups. The exercise should take a maximum of ten minutes. Delegates are to consider any issues detailed in the case study which may lead to complaints regarding statutory nuisance. Delegates are to identify work that may be likely to lead to breaches or complaints, and to provide options for reduction. Each group should briefly report its findings.

15.4. Learning points

Delegates will be able to consider the interaction between elements of the construction process and neighbouring residents or businesses. They will identify key site-wide issues and develop appropriate control measures.

16. Exercise 8: Archaeology and heritage

16.1. Aim

To enable delegates to identify possible archaeology and heritage issues on site.

16.2. Learning objectives

By participating in this exercise, delegates should be able to identify possible areas of archaeological or heritage value on construction sites. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

16.3. Exercise method

Delegates should return to their case study groups. The exercise should take a maximum of ten minutes. Delegates are to consider any possible archaeological or heritage issues in the case study. Each group should briefly report its findings.

16.4. Learning points

Delegates will be able to consider the implications of archaeological or heritage issues not being highlighted at the start of a project, and develop appropriate strategies for unexpected finds.

17. Exercise 9: Responsible contractor

17.1. Aim

To allow delegates to reflect on the information gained during the course, and to consider ways to improve their environmental performance on site.

17.2. Learning objectives

By participating in this exercise, delegates should be able to identify possible areas of environmental practice in which they could improve. This is not an assessed exercise, but groups should be observed to ensure that they have understood the information.

17.3. Exercise method

Delegates should form groups of two or three based on their employment, either working for the same company or within the same sector of construction. The exercise should take a maximum of twenty minutes. Delegates should focus purely on things that they, as a supervisor, can achieve on site. They should consider the contents of the course and identify what they must do to be a responsible contractor. Each group is to identify areas in which they could improve their sites, and each delegate is to consider several improvements in the way they personally manage a site. Each group should briefly report its findings, and each delegate give one example of something they intend to do differently in future.

17.4. Learning points

This exercise allows each delegate to concentrate on improvements that they can make to the environmental performance of their sites or gangs. The requirement to report back makes every delegate consider an individual action plan.

18. Notes to training providers

At the start of the course, training providers must provide each delegate with their own copy of the mandatory publications which will be retained by the delegate upon completion of the course.

Training providers must purchase at least one of the SEATS Case Study packs. Pack 1 is aimed at the civil engineering side and Pack 2 is aimed at general construction and house building. There is no mandatory requirement for trainers to purchase BOTH packs as they are available to purchase separately on the CITB Shop.

Copies of the proposed programme changes, if any, must be submitted prior to course delivery.

The examination paper number will be notified when the course booking is accepted by CITB.

19. Suggested timetable

Session	Subject	Syllabus	References
AM	1. Course administration	<ul style="list-style-type: none"> Welcome, registration and domestics in accordance with venue requirements. 	
	2. Course introduction	<ul style="list-style-type: none"> Explanation of the course structure, content, exercises and assessment procedure. Industry endorsement and Build UK. Aims and objectives of the course (overview). Introduction to GE700 <i>Construction site safety</i> – Book E: Environment and SEATS case studies. 	GE 700 – Book E SEATScs1 or SEATScs2
	3. Aims and objectives	<ul style="list-style-type: none"> Aims, objectives and expectations. 	
	4. Why is the environment important?	<ul style="list-style-type: none"> What is the environment? The role of construction. Who polices the environment. Polluter pays principle. 	GE700 E1
	5. Environmental Management Systems	<ul style="list-style-type: none"> Outline of EMS e.g. 14001. Environmental risk assessment. Aspects and impacts. Source pathway creator. 	GE700 E10
	Exercise 1	<ul style="list-style-type: none"> Exercise 1: Source–Pathway–Receptor. 	Exercise 1
	6. Ecology	<ul style="list-style-type: none"> Priority species/biodiversity. Framework. Trees and hedgerows. Invasive species. 	GE700 E07
	Exercise 2	<ul style="list-style-type: none"> Exercise 2: Ecology. 	Exercise 2
	7. Contaminated land	<ul style="list-style-type: none"> What is contaminated land? Precautions. Identification. CL:AIRE – Code of Practice. 	GE700 E08

Session	Subject	Syllabus	References
	Exercise 3	<ul style="list-style-type: none"> Exercise 3: Contaminated land. 	Exercise 3
	8. Waste management	<ul style="list-style-type: none"> What is waste? Duty of care and transfer notes. Waste hierarchy. Costs of waste. Types of waste. Hazardous waste. Re-use on site. SWMPs. 	GE700 E03
	Exercise 4	<ul style="list-style-type: none"> Exercise 4: Waste management. 	Exercise 4
PM	9. Pollution prevention and water management	<ul style="list-style-type: none"> Controlled waters. PPG6. Pollution types and pathways. Water stress. Use minimisation. 	GE700 E05
	Exercises 5 and 6	<ul style="list-style-type: none"> Exercises 5 and 6 – Pollution prevention. 	Exercises 5 and 6
	10. Good neighbour	<ul style="list-style-type: none"> What is statutory nuisance? Community engagement. Considerate Constructors Scheme (CCS). 	GE700 E06
	Exercise 7	<ul style="list-style-type: none"> Exercise 7: Statutory nuisance. 	Exercise 7
	11. Protecting our heritage	<ul style="list-style-type: none"> Archaeology. Treasure. Heritage. 	GE700 E09
	Exercise 8	<ul style="list-style-type: none"> Exercise 8: Archaeology and heritage. 	Exercise 8

Session	Subject	Syllabus	References
	12. Energy and resources	<ul style="list-style-type: none"> • What are the issues? • Energy and construction. • Energy use minimisation. • Sustainability. 	GE700 E04
	13. Examination	<ul style="list-style-type: none"> • Multiple-choice exam. 	Exam paper as allocated
	14. Being responsible	<ul style="list-style-type: none"> • Summary of what being a responsible contractor means. • Considerate Contractors' Scheme (CCS). 	GE700 E06
	Exercise 9	<ul style="list-style-type: none"> • Exercise 9: Responsible contractor. 	Exercise 9
	15. Summary and feedback	<ul style="list-style-type: none"> • Individual feedback from exam. • Summary of course key points. 	
	16. End of course wrap-up and administration	<ul style="list-style-type: none"> • Review of aims and objectives. • Did the course meet the objectives effectively? • Feedback forms completed. • Course paperwork completed and finalised inc. Course Assessment Reports. 	

20. End of course examination rules

20.1. Exam details

The examination paper is compulsory and consists of 25 multiple-choice questions.

The examination pass mark is 72% (18 out of 25).

It forms the basis of assessment as to whether or not a delegate has successfully achieved a satisfactory level of health and safety awareness for a certificate of achievement to be issued.

The examination lasts for 30 minutes and must be completed within this time.

Delegates are permitted to use *Construction site safety – Book E* (GE700) for the last 10 minutes of the examination period.

20.2. Re-sits procedure

Where a delegate has achieved between 64%–68% (16 or 17 out of 25) in the examination, the delegate may re-sit the multiple-choice examination. This can either be on the same day or by resitting the exam by attending another course on the final day within a 90 day period (the delegate is not obliged to re-do the day's course).

The training provider must make the arrangements with the delegate and ensure that the same examination paper is not used twice.

A charge may be made to the delegate: however, this fee is left entirely to the discretion of the training provider. The training provider may also have additional costs to be recovered from the delegate and this should be agreed in advance.

Subsequent arrangements will be at the delegate's own expense.

Should the delegate fail the re-sit, they will be required to attend the full SEATS course again, or will be offered an alternative course which is considered to match the delegate's level of knowledge and understanding.

When a delegate scores less than 60% (15 correct answers out of 25) in the final examination, the delegate must attend the full SEATS course again before they are allowed to re-sit the examination.

21. Tutor requirements

Tutors delivering this course must meet the following tutor requirements:

To deliver the Site Environmental Awareness Training Scheme (SEATS) Course, tutors must be employed by a construction company and have a thorough working knowledge and awareness of the construction industry. In particular: the different types of construction companies, and sectors in which they work; the processes and operations typically found on site and supply chain dynamics. Tutors must also meet the requirements as detailed in the Quality Assurance Requirements.

In additional to the minimum tutor requirements, for the course listed above the tutors must have attended and achieved and hold a current certificate for this course and meet the criteria below:

In addition they must hold at least **ONE** of the following:

- A degree in an Environmental or Sustainability discipline
- NVQ/SVQ Level 3/4 in Environmental Management
- NEBOSH Environmental Diploma
- Associate membership of IEMA.

*In addition to the above qualification, please note a completed SEATS TCS course will also be accepted.

***Note: The Level 5 NVQ/SVQ in Occupational Health and Safety has replaced the Level 4 within the Qualifications and Credit Framework. Holders of the Level 4 qualification with a valid certificate will be accepted.*

- Tutors must also have a working knowledge of the following: Sustainability and environmental issues that impact on construction Environmental legislation

Code for Sustainable Homes and BREEAM standards

Key principles and related standards of CSR

UK Government Sustainable Construction Strategy and other government programmes such as:

Carbon Trust

The Energy Saving Trust

Constructionline

Smart Waste

22. List of abbreviations

CCS	Considerate Constructors Scheme
CL:AIRE	Contaminated Land: Applications In Real Environments
EMS	Environmental Management System
PPG	Pollution Prevention Guidance
SEATS	Site Environmental Awareness Training Scheme
SEATS+	Site Environmental Advanced Training Scheme Plus
SWMP	Site Waste Management Plan