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MDG Novecare

HEALTH and SAFETY PLAN

SITE DEVELOPMENT PLAN – *DEMOLITION WORKS*

KEG SHED WAREHOUSE, TIN SHOP, LIME BUND

PROJECT NO. S0089

Client

Solvay (Rhodia UK Ltd.),
P.O. Box 80,
Trinity Street,
Oldbury,
West Midlands.
B69 4LN

CDM Coordinator

Manufacturing Development Group,
Solvay (Rhodia UK Ltd.),
P.O. Box 80,
Trinity Street,
Oldbury,
West Midlands.
B69 4LN

Designer

Manufacturing Development Group,
Solvay (Rhodia UK Ltd.),
P.O. Box 80,
Trinity Street,
Oldbury,
West Midlands.
B69 4LN

Principal Contractor

Manufacturing Development Group,
Solvay (Rhodia UK Ltd.),
P.O. Box 80,
Trinity Street,
Oldbury,
West Midlands.
B69 4LN

Project Manager
John Hares.
24/10/13

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1.0 INTRODUCTION

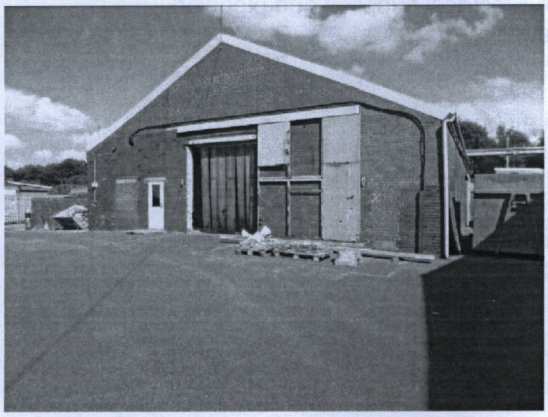
A large number of buildings, warehouses, concrete bunds, tanks, etc are to be demolished as part of the site Development Plan.
The following buildings will be done this year with the remainder over forthcoming years to a timescale yet to be agreed.
There are 30 demolition areas detailed for eventual demolition.
The items covered by this HSE Plan are: The Tin Shop, The Keg Shed Warehouse and ex Lime Bund.

2.0 SCOPE OF WORK

The work comprises the demolition of the following buildings and concrete bund:-

Topside

1. Keg Shed Warehouse



Bottom side

2. Tin Shop

3. Concrete ex-Lime Bund – this is close to the Tin Shop

The work required is to demolish the buildings down to the **topside** of the concrete slabs.
The concrete bund is to be demolished down to level surfaces.
Further work may be agreed regarding the floors and foundations.
Each location will have a different requirement but the objective is to leave no trip hazards or uneven surfaces.
For example:-

a. Where floors are high, some areas may include grubbing up foundations and stopping of drains and underground ducting and filling in any resulting voids, open edges etc with suitable inert demolition arisings when tested and approved, to make safe.
b. In some cases, sections of the building wall could be left in place to form a safety barrier or concrete ramp may be required (eg Keg Shed)
c. Where floors are level with surrounding roadways then nothing may be required.
d. Where floors are low, they may require filling with tarmac or concrete.
e. The above will be agreed following further site discussions.

Keg Shed

- The building is of brick construction with a metal sheeted roof.
- Dimensions: 23m long X 16m wide X 6.5m high
- All Asbestos has been removed
- The building has been fully Isolated from Electrical supplies and pipework
- The building has been fully decontaminated.

Tin Shop

- The building is of brick construction with a slate roof.
- Dimensions: 37m long X 11m wide X 5.5m high
- Some Asbestos remains in the flash guards of the redundant electrical equipment – this will be removed prior to the demolition work commencing.
- The building has been fully isolated from Electrical supplies and pipework.
- The building has been fully decontaminated.

Lime Bund

- The bund is of reinforced concrete construction with bund walls and plinths.
- The perimeter of the Bund is about 58 m

2.0 TIMESCALE OF PROJECT

- Start date; 11 November 2013
- Demolition duration for all structures – three weeks
- See attached execution Program revr3a

4.0 WORKING AREA CONSIDERATIONS

4.1 Surrounding Land Uses and Related Restrictions

4.1.1 Demolition Site Specific Information

- The demolition sites are shown on the attached site plan (Structures 7, 25,28)
- Roadways and footpaths run very close to the demolition sites.
- The demolition sites are close to working production plants.
- See attached site layout plan

4.1.2 General Information

- Traffic movement is common around the site, with HGV's, forklift trucks and similar vehicles operating around the area.
- Rhodia personnel are also working in and around the almost all the areas, and so each demolition site area will need to be segregated and cordoned off.

- There are a number of existing services on and around the area which will need to be identified and may require protection.
- Access to the site is good; however, careful site controls will be required to enable machinery, etc to operate safely. Localised protection of adjacent equipment will be required to prevent accidental damage – to be agreed with the Construction Engineer.
- Vehicular access planning must account for pipe bridges in the area.

4.1.3 The working area will comprise of:-

- Keg Shed at NE corner of site
- Tin Shop and concrete bunds at NW corner of site.

4.2 Scrap, Waste, Rubbish and Materials

4.2.1 General:

The Contractor shall ensure that each working area is maintained in a clean and tidy condition at all times.
Throughout the works, the contractor must act to prevent materials, waste, rubbish, etc from collecting and causing obstruction, nuisance or safety hazards.
Some of the redundant material, scrap, waste arisings, surplus materials etc, may be required to be moved to an area, designated by the Solvay Construction Engineer, near to the working area, for possible decontamination prior to removal from site.
The Contractor must take care not to cause damage to existing road surfacing. For example, rubber tracked machines or surface protection.
Particular care must be taken when tracking machines across site. For example use of rubber protection mats/tyres.

4.2.2 Waste Disposal:

Most of the waste will be clean concrete and bricks and roofing materials, which will be examined and tested before disposal.
Some suitable inert demolition arisings, when tested and approved, may be used to fill voids, open edges etc to make the site safe in preparation for final finishing.
All spoil/rubble must be removed from site to a licensed re-cycling facility to extract all recyclable materials.
The non-recyclable materials must be disposed of at a licensed landfill site.
All disposals must be recorded via the statutory waste transfer documentation and also weighed over the Solvay weighbridge.
On completion, the site shall be left clean and tidy to the satisfaction of the Solvay Construction Engineer

***4.2.3* Waste Documentation**

- Contractor to hand all "Waste Transfer notes" and any "Special Waste transfer notes" to the Engineer or Project Manager.
- Contractor to hand all Weighbridge tickets issued by the Lobby to the Engineer or Project manager (Weights required for Solvay database).

***4.3* Services**

The following services were present in most of the redundant plant areas when in operation:-

- Electricity
- South Staffs Water
- Steam
- Telephones
- Alarm systems

There are also:-

- Drains
- Underground services

All relevant plant services will be isolated prior to any dismantling/demolition work commencing.

Where services are currently supported off the buildings due for demolition, Solvay will install suitable pipe/gantry/cable supports, etc.

Electrical supplies will have been isolated prior to any dismantling/demolition work.

However, drains and any underground ducting may require stopping by the Demolition Contractor.

4.4 Permit- to Work

A Permit-to-Work will be issued daily to cover the work to be progressed.
Only work specifically detailed on the P-T-W should be undertaken
Only work specified on the site specific Method Statement must be undertaken and the appropriate PPE worn, specified by the Construction Engineer.

Permits will be obtained from the Trinity St. Site Office (ex STC):-
Main Permit Writer – ***Paul Mason and/or Mike Powell***
All personnel working on the Project must sign onto the Permit at the start of the working day and sign off at the end of the day.

All visitors to the construction area will be required to sign the visitor's book.

4.5 General additional HSE Information

As stated above, during construction, the work area will be restricted for access to unauthorised personnel, as is practical, by the demolition contractor.
Within the working area, work must progress in an orderly and tidy manner.
All unwanted scrap and debris must be safely stored for disposal in a safe manner.
There will probably be more than one contractor working at any one time.
Consideration must be given to eliminate risk to others.
Procedures and techniques must be in place to protect employees, contract personnel and existing equipment from debris or falling materials.
All personnel working on the project will be made aware of the location of the muster point and the nearest Toxic Gas refuge room.

The employer may need minimal infrequent access to the site.

4.6 Planning Restrictions

A planning application has been made to the local authority and planning permission has been approved.

Burning of rubbish on the site is strictly prohibited.

5.0 <u>SITE-WIDE CONSIDERATIONS/SITE RULES</u>

All work will be carried out subject to the Health, Safety and Welfare General Conditions (G02), a copy of which is attached in Appendix 1. These Conditions specify the working methods required of contractors on site to ensure the safety of both the contractors and Rhodia personnel affected by the work.

Control of access to the site will be through the Oldbury Works Lobby. All contractors must report to the Lobby on their arrival on site and obtain a pass, which they must return to the Lobby as they leave the site each day.

Warning signs and barriers should be used to warn of particular hazards such as welding work or heavy lifting work.

All contractors engaged to work on this project must be inducted with respect to the Site Safety Rules and Emergency Evacuation Procedures before they are allowed to commence

work on the site. Induction will be required, unless they have the appropriate induction card.

A Permit to Work must be obtained prior to commencement of any work on the site.

The consumption of food or drink is prohibited within the plant area.

Minimum PPE of safety helmets, safety glasses and safety shoes/boots must be worn at all times on the Works, except within a dedicated or office area.

All deliveries of plant and equipment for this project must come through the Lobby. Pre-notification of these deliveries should be made to the Project Manager.

Arrangements for any temporary site accommodation, and plant and equipment laydown areas should be made with the Project Manager before site work commences.

HSE Guidance Document G2, Guidance for Contractors on Oldbury site, provides full details on general arrangements for contractors working on site (site facilities, administration, service and welfare facilities, working arrangements/procedures and emergencies).

Permits-to-Work will specify the location of the muster point for the Effluent Plant and the nearest toxic gas refuge room.

Minimum PPE of safety helmets, safety glasses and safety shoes/boots must be worn at all times on the works, except within a dedicated or office area.

5.1 Overlap with client's occupied areas

Contractors must ensure that appropriate control measures are put in place to protect the adjacent site personnel and visitors from exposure to risk from the demolition work.

5.2 Interfaces with the General Public

The Demolition Contractor must take all measures necessary to protect the general public from any risks arising out of the works.

Wherever possible the Demolition Contractor shall programme the works and sequences of operations to allow for the complete segregation of all demolition activities from the general public. Where this is not possible the Demolition Contractor shall identify all the hazards and risks which will affect the general public and take appropriate measures, including the provision of hoardings/barriers, protection from falling materials, avoidance of uneven surfaces, adequate illumination, etc., to adequately control these risks.

The Demolition Contractor to ensure all vehicles leaving the site with loaded demolished materials shall be suitably covered to ensure no dust, debris or rubbish may be blown or fall from the vehicle during its route.

5.3 Interface with high-risk activities/trades

The Demolition Contractor must identify all interfaces of high risk demolition activities and take appropriate measures when programming the works to ensure that such interfaces can be adequately controlled to avoid the creation of unmanageable risks.

Contingency provisions must be made for potential activity overruns.

5.4 Site Rules

Solvay Oldbury Site Rules:
All contractors engaged to work on this project must be inducted with respect to the Oldbury Site Safety Rules and Emergency Evacuation Procedures before they are allowed to commence work on the site. Induction will be required, unless they have the appropriate induction card.

The Demolition Contractor's site management procedures and site rules must include:

Description		Source
Health & Safety Management	Responsibilities	Management of Health & Safety at Work Regs. (MHSW).
	Risk assessment procedures	MHSW
	Training / information procedures	CDM, MHSW
	Audit / inspection procedures	MHSW
	Accident / incident reporting & Investigation procedures	Reporting of Injuries, Diseases & Dangerous Occurrence Regs. (RIDDOR) and to the Employers Representative.
General Site Rules	Emergency procedures	MHSW
	Fire prevention	Joint for fire Prevention on Construction Sites
	Security procedures	The Contractor is responsible for all demolition site security
	Personal protective equipment	PPE Regs., SS28 (HSE)
	Alcohol & drugs policy	None allowed
	Smoking policy	None allowed
	Accident / incident reporting	In addition to own prod. notify the Employers Representative
	Generally	Solvay General site rules
Specific Control Procedures	Restrictions on access	Warning signs to be supplied and erected around the site enclosure fence and gates.
	Permit to excavate	SS7, HS (G) 47 (HSE), HSE (150) Inspection Procedure. Also Rhodia Permit.
	Electrical isolation/live working	GS24 (HSE)
	Hot working	HS(G)5 (HSE)
	Confined space entry	SS15, GS5 (HSE)
	Ionising radiation	L58, COP16, HS(G)91 (HSE)
	Manual handling	Manual Handling Regs. HS(G)60 (HSE)
Other Procedures	Site access / egress	Check in at Rhodia Security access gate.
	Delivery & unloading	All within fenced area.

6.0 QUALITY

All stages of work will be inspected as a matter of routine by the Construction Engineer, Project Manager or members of the Project team.

7.0 AVAILABLE DRAWINGS AND DATA

7.1 Existing Underground Services Information

Drawings will be provided for the relevant underground services for each demolition site:

Service	Information source(s)
Electricity	See Solvay drawings
Gas	See Solvay Drawings
Towns Water	See Solvay Drawings
Any old P4 Drains	See Solvay drawings
Drainage (foul, effluent and storm water)	See Solvay Drawings

The Demolition Contractor may be required to carry out a survey, employing detection equipment, to verify the location and status of all known underground services, and to check for unrecorded services, prior to commencing any demolition, site clearance or earthworks.

(To be agreed with Project Manager)

Contractors must establish formal procedures to ensure that any unrecorded services located during the works are carefully checked to determine their nature and status.
The contractor will be required to record relevant information and provide this to the Project manager prior to agreeing a course of action.

Measures shall be taken to protect all services as specified prior to commencing demolition, site clearance or earthworks.

The guidance set out in the Health & Safety Executive Guidance Booklet HS (G) 47 must be followed.

7.2 Existing Overground services Information

- Solvay will provide relevant drawings for each demolition area.

7.3 Existing Traffic Systems and Restrictions

The following traffic systems and / or restrictions apply to this project:

Refer also to item 8.1, for details of Solvay UK Ltd access requirements to the site, during demolition.

All private vehicles must be parked in the main car park shown on the location plan. Drivers of all vehicles entering or leaving the site must take great care – particular attention to be paid to Rise/Fall of security barrier (which will be emphasised during Induction)

The Demolition Contractor must advise of the appropriate control measures to ensure that they comply with the above restrictions for both personnel and vehicles.

7.4 Existing Buildings/Structures/Plant

The following hazards exist in relation to existing buildings / structures to be demolished or incorporated into the works, and plant to be dismantled or decommissioned:

Type of Hazard	Specific Hazard Details
Materials and substances with health hazards. (see note •)	Asbestos. Refer to the schedule of remaining asbestos based substances included in the Asbestos Survey (see Appendix 3)
General conditions	Demolition dust may contain chemical contaminants. The sub-soil beneath and around the buildings may also be contaminated - an old P4 drain runs close to the building.
Electricity	Will be isolated but to be checked

- An Asbestos survey has been carried out for each building (see Appendix 3).
- All Asbestos materials identified in the survey report has been removed from the buildings.
- However, if any Asbestos materials are identified during the Contractor's risk assessment, then separate quotes will be required for removal of any Asbestos materials.

The Demolition Contractor must establish appropriate measures to control the risks arising from these hazards.
Personal Protective Equipment is to include eye protection, masks, chemical resistant gloves, disposable overalls, safety footwear, helmets and high visibility vests or jackets.
The Demolition Contractor must adopt appropriate safe working / protection measures to deal with these hazards.

7.4 General Building Drawings

The following drawings are available in respect of the existing site layout / conditions, existing buildings and features:

Type	Information Source(s)
Site layout	To be provided by Solvay
Buildings to be demolished.	To be provided by Solvay
Statutory services on or adjacent to the site.	To be provided by Solvay

7.5 Design

7.5.1 Principles of Design

Principles of the design to be agreed, for example:-

a. Dismantling/Demolition method for each location – Demolition Plan to be supplied and agreed by the client.(see Appendix 3)
b. Materials to be recovered
c. Floors/Foundations – Trip hazards
d. Some Data M3 or tonnes of brick, or weighbridge tickets to be provided to Project Manager – for Solvay data base.

7.5.2 General Design Risk Assessments and Hazard Identification

The significant residual hazards, hazardous operations and hazardous work sequences identified during the design, which cannot reasonably be designed out, are noted below:

Activity	Element	Hazard/Risk	Minimum Control Measures Expected
Demolition	Hazard	Hazardous substances	Personal protective equipment as described in item 4.4 (above).
Demolition	Risk	Working at height	Use of safety harnesses or other measures to prevent falling
Demolition	Hazard	Presence of fumes	TBC
Demolition	Hazard/Risk	Handling of materials, risk of falling debris and air borne dusts.	PPE hardhat, gloves, boots, eye protection and overall at all times.
Demolition	Risk	Working in vicinity of large plant and vehicles.	Wearing of high visibility jackets or waistcoats at all times. Provide safe access and footpaths for pedestrians as HS(G) 150

It should be noted that the application of the recommended controls will not necessarily eliminate all risks.

Appropriate training and information must be provided to the site management, operatives and others affected by the works, in order to minimise and/or control the residual risks. The principal contractor and all other contractors must also ensure that appropriate personal protective equipment (PPE) is provided and used, where necessary, together with providing sufficient training in the use of that PPE.

The individual hazards / risks identified in this plan may in many cases be combined with other hazards / risks and thereby create an increased hazard / risk which will need to be managed accordingly.

The above list does not purport to address all commonplace site hazards, which are deemed to be within the normal experience of a competent contractor and can be controlled by the application of normal good site management practices.

The Demolition Contractor must take account of the residual hazards which they must take measures to control during the construction stage by the application of appropriate safe methods of work and/or the use of adequate means of protection.

The Demolition Contractor must identify those residual hazards, which they believe cannot be adequately controlled during construction, and require a further review of the design.

7.5.3 Demolition

7.5.3.1 Activities

The following activities indicated with a ✓in the left hand box have been identified as posing a special health & safety hazard during the demolition phase of the works. It is expected that

the Demolition Contractor will adhere to the performance standards listed, in order to fully manage the hazards safely.

	Activity	Principle Hazard	Performance Standards	Title
✔	Asbestos removal	Toxic, Harmful	L27 L28 EH10 EH50 EH51	Control of asbestos at work Work with asbestos installations Asbestos exposure limits & measurements Training operatives & supervisors for work with asbestos. Enclosure provided for work with asbestos
✔	Concrete form work	Collapse	HS(G)32	Safety in false work for in-situ beams and slabs
✔	Confined Space	Suffocation	L101 Con. Sheet 15	Safe work in confined spaces Confined spaces
	Compressed air	Explosion	HS(G)39	Compressed air safety
✔	Crane	Falling/Toppling	BS7121	Safe use of cranes
✔	Demolition		BS6187	Code of practice for demolition
✔	Electrical	Electrocution	HS(G)85 HS(G)141	Electricity at work. Safe practices. Electrical safety on construction sites.
✔	Equipment removal	Physical injuries	L20 L23	A guide to the lifting of plant & equipment. Manual handling
✔	Excavation	Collapse	HS(G)47 Con. Sheet 8	Avoiding danger from underground services Excavations
✔	Ladders/Steps/Trestle	Falling	GS31 Con. Sheet 2 Rev	Safe use of ladders, steps & trestles Safe use of ladders
✔	Powered mobile platforms	Falling/Toppling	Con. Sheet 17	Construction Health & Safety check list (Powered access equipment)
	Pressure Testing	Explosion	GS4	Safety in pressure testing
✔	Roof Work	Falling	HS(G)33	Health & Safety in roof work
✔	Scaffold	Falling	Con. Sheet 17 Con. Sheet 3 Rev Cons. sheet 10	Construction Health & Safety check list (Scaffolds) General access scaffolds Tower scaffolds
✔	Vehicles/JCB/Dumper	Collision	Con. Sheet 17	Construction health & safety check list (Traffic & Vehicles).
✔	Welding/Burning	Explosion Respiratory	HS(G)139 EH55	The safe use of compressed gases in welding, flame cutting & allied processes. The control of exposure to fume from welding, brazing & similar processes.
✔	Grinding/Disc cutting	Eye Injuries	HS(G)17	Safety in the use of abrasive wheels.

7.5.3.2 Contamination Materials

All the buildings have been (or will be) decontaminated, sampled and tested by Solvay.

A "Certificate of Cleanliness" will be provided before demolition works starts.

Contractors must make adequate provision for the introduction of appropriate measures during

demolition to prevent or control exposure to hazardous materials and substances. The Demolition Contractor and all other contractors must also ensure that appropriate personal protective equipment (PPE) is provided and used, where necessary, together with providing sufficient training in the use of that PPE.

The individual hazards/risks identified in this plan may, in many cases, be combined with other hazards/risks and thereby create an increased hazard / risk which will need to be managed accordingly.

Care must be taken during the removal or alteration of galvanised or painted pipe work, ductwork, tanks, etc., to avoid creating toxic fumes or where this is not reasonably practicable to control the risk arising from such fumes.

8.0 RISK ASSESSMENT

Risk Assessments will be carried out on the activities involved in the Scope of Work. These will be included in Appendix 2.

The following basic safety control must be employed:-

(a) Safe access/egress to all working areas. Consideration must be given to other trades working in the area.

(b) Certified lifting equipment must be used for any lifting operation.

(c) Tradesmen to be experienced and have appropriate qualifications.

(d) Appropriate PPE to be worn at all times. This will be stated on the Permit to Work.

(e) Safety harnesses are to be worn and secured for all work where there is the risk of a fall greater than 2 metres.

During certain tasks as identified in the Risk Assessment, the contractor will be responsible for the erection of a barrier(s) or fence to prevent access to unauthorised personnel.

9.0 METHOD STATEMENTS

(See also 7.5.4) - A detailed Method Statement is to be provided by each contract company involved before site work commences. This must detail not only what work is to be done but also how it is to be done. Relevant related contractor Method Statements for the work will be included in Appendix 3.
See Appendix 3 for Demolition Plan – which details the Demolition Method

10.0 CONSTRUCTION PHASE LIAISON

Any further health and safety considerations and notification of unforeseen eventualities should be directed to the following:-

The Project Manager for this Project is John Hares.
The Construction Engineer for this Project is Paul Mason and/or Mike Powell.
The E/I Engineer for this Project is John Davies

	John Davies	Paul Mason	Mike Powell	John Hares
Internal Tel.	3338	3391	3234	3677
External Tel.	0121-541 3338	0121-541 3391	0121-541 3234	0121-541 3677
Site Pager	427		-----	-----
Site Radio	------		-----	-----

Mobile	07870 891382		-----	07850 921647

NB Out-of-Hours Contact: Lobby, Tel No. 0121-552 3333

All contractors' staff (managers, supervisors and tradesmen) should be made aware of the Health and Safety File for this project.
A copy will be kept in the site office for the duration of this project.

Each of the contract companies working on this project should have a nominated supervisor/manager on site at all times as this project is being undertaken.

John Hares
Project Manager/CDM Co-ordinator
Manufacturing Development Group
24/10/2013