Streetscene
Y-Strydynun

Civic Centre/Canolfan Ddinesig
Newport/Casnewydd
South Wales/De Cymru
NP20 4UR

Environmental Services

Construction and Operational Management Plan for New SNRW Cell

Docksway Landfill Site

Project Ref: 2506
Date: Feb 2015

Streetscene
Y-Strydynun

Civic Centre/Canolfan Ddinesig
Newport/Casnewydd
South Wales/De Cymru
NP20 4UR

Document Control Sheet

Project Name: New Stable Non-Reactive Hazardous Waste Cell – Docksway Landfill Site
Project Ref: 2506
Report Title: Construction and Operational Management Plan
Date: Feb 2015

	Name	Position	Signature	Date
Prepared by:	Ian Fisher	Principal Civil Engineer		03/03/15
Reviewed by:	Kate Riley	Principal Engineer		12/03/15
Approved by:	Malcolm Lane	Environment Manager.		
Environmental Services				

Revision	Date	Description	Prepared	Reviewed	Approved

Contents

APPENDICES

Appendix A	–	Weighbridge Questions
Appendix B	–	SNRHW Cell Log
Appendix C	–	Induction Agenda
Appendix D	–	Training Log
Appendix E	–	PPE / Vehicle inspection Log
Appendix F	–	Health and Safety Risk Assessment
Appendix G	–	Drawings

1.0 INTRODUCTION

1.1 General

1.1.1 Newport City Council (NCC) intends to construct its latest biodegradable non-hazardous waste cells at its Docks-way waste disposal site during the summer of 2015. The authority would like to re designate a portion of this development as a stable non-reactive hazardous waste cell (SNRHW) in order to receive and dispose of Asbestos waste..

To this end it has retained the services of Peter Brett Associates (PBA) to prepare and submit an application to vary the sites existing environmental permit and to provide all the necessary design and technical data that would support such an amendment.

1.1.2 The following additional documents support NCCs permit revision application.

Revised Stability Assessments – Document No 14739/155

Revised Hydrogeological Risk Assessment - Document No 14739/155 00

Review of Gas Risk Assessment – Tech Note

Review of Environmental setting and Installation Design (ESID) report – Tech Note

Non-Technical Summary – Tech Note

1.1.3 This document is intended to provide a detailed plan setting out how NCC intends to construct the SNRHW cell. It provides construction details of the infrastructure proposed to run it in context to its own constraints, and that imposed on it by the proposed adjacent Non Hazardous Cell.

Furthermore it describes how SNRHW is accepted to the site and then deployed to the allocated waste cell.

1.1.4 The management plan for acceptance of SNRHW will supplement the sites current environmental management system that forms part of our agreed IPPC permit. It will be reviewed Bi-annually in the first two years then annually thereafter in order to ensure that it remains relevant and adequately controls the acceptance of asbestos waste onto site from an environmental, operational and regulatory perspective.

1.1.5 Section 5.0 sets out the protocols for acceptance of asbestos waste onto the Docks-way facility and Section 6.0 sets out the protocols for deployment to the landfill SNRHW cell.

1.2 Construction of Basal Liner System

1.2.1 The construction of Cell 3 will begin in the spring of 2015 and comprise two sub cells, the more northerly of which is the subject of this Management plan.

1.2.2 The nature of the liner construction within cell 3 will have continuity with the preceding two cells and has been agreed with the former Environment Agency through the IPPC permit application. A summary of the main construction elements is outlined below. No variation to this original design has been sought since its agreement.

(i) The basal liner will be installed in accordance with a detailed engineering specification and will be subject to a thorough Construction Quality Assurance (CQA) plan implemented by experienced third party Engineers. A copy of this plan will be submitted to Natural Resources Wales prior to start onsite.

(ii) To facilitate construction of the engineered clay liner, the very soft to soft underlying alluvial deposits shall be strengthened to a depth of 2m by application of a liquefied modified binding agent to the soil that increases its shear strength to between 50kN/m^2 and 150kN/m^2 whilst retaining a maximum permeability of no greater than $1x10^{-9}$m/s.

(iii) A minimum of 1.2m of cohesive material is engineered to achieve a maximum permeability of no greater than $1x10^{-9}$m/s. The minimum gradient of the base towards the sumps will be 1 in 50. The edge of the new cell will be keyed into the 5m connection strip left after completion of the subsequent cells thus providing a homogenous liner under all the cells.

(iv) To aid in the control of surface waters and leachates and to define the filling areas, a series of cell separation and phase bunds will be constructed. The layout of the Proposed SNRHW cell is shown in context with the completed cells in PBA Figure 2 whilst the construction of the proposed separation bund is shown on drawing No 2505 001 both of which are presented in Appendix G

(v) A prescribed drainage medium and leachate collection infrastructure will then be applied to the finished clay surface to facilitate leachate collection.

1.2.3 Following completion of the works a full CQA validation report will be prepared and issued to NRW for approval in the normal way.

1.2.4 The permit revision does not propose any changes to the construction of the geological barrier. The Engineering of the containment, (i.e. the natural geological barrier and the mineral liner) will not be amended remaining as agreed in the original permit. The proposed cell construction is appropriate for the SNRHW cell in accordance with guidance provided by NRW.

The SNRHW cell and the adjacent non-hazardous cell will be separated by construction of an internal separation bund, and the leachate extraction system in the SNRHW cell will be isolated from the adjacent systems, as described in Section 2.

2.0 CONSTRUCTION OF SEPARATION BUND

2.1 Location and Dimensions

2.1.1 The nature of the construction bund can only be definitively designed by establishing the rate in which we anticipate receiving both asbestos waste and non hazardous (domestic) waste. This parameter will determine the orientation of the bund as set out below and its concept is referenced in Paragraph 5.14 of Regulatory Guidance Document LFD 1.

Waste Inputs	Bund Orientation	Reason	Bund Material
Equal amounts of Asbestos and Non Hazardous Waste (NHW)	Vertical	Equal amounts of waste either side of the bund allow enough lateral restraint to ensure appropriate vertical stability	Inert Waste supplemented by HDPE Drainage Net
More Asbestos waste than (NHW)	Diagonal with (NHW) overlaying the Asbestos	The absence of lateral support from the (NHW) means that the stability of the bund can only be ensured by constructing it with a prescribed angle of repose identified in the stability assessment with the subsequent NHW overlaying it at a later date	Inert Waste supplemented by HDPE Drainage Net
More (NHW) waste than Asbestos	Diagonal with Asbestos overlaying the (NHW)	The absence of lateral support from the Asbestos means that the stability of the bund can only be ensured by constructing it with a prescribed angle of repose identified in the stability assessment with the subsequent asbestos overlaying it at a later date.	Inert Waste supplemented by HDPE Drainage Net

In response to these variables, stability assessments for each permeation have been conducted and are included in Document No 14739/155 Construction of the geological barrier will include the formation of a clay intermediate bund along the Engineered ridge. This bund will be integrated and compacted into the liner clay to provide a low permeability seal greater than 1×10^{-9} m/s. Its dimensions will be a minimum of 2.0m thick and 2.0m high with side slopes of 1:2. This will form the separation for the initial lift, and form the basis for the continuation of the separation bund as the work progresses.

The separation bund will be a minimum of 2.0m thick and be constructed in lifts of 2.0m (refer to Drg 2505 001). The interface of the separation bund and any Non-hazardous wastes that include biodegradable wastes will be supplemented by a geo-synthetic drainage net that will help to direct any fugitive leachate back into the basal drainage layers of the Non-hazardous cell.

2.2 Material Selection

2.2.1 The materials used in the construction of the separation bund will be generally cohesive in nature and at a moisture content capable of adequate compaction. The shear strength will be required to achieve a minimum of 40kN/m^2 and will be assessed empirically using quantitative methods such as a hand held shear vane.

2.2.2 The materials for the separation bund shall be pre-selected by the Site Manager in consultation with the Site Engineer. Material should be free from deleterious matter and will be designated as unsuitable if it contains any of the following:

- Significant proportions of oversized materials (> 150mm)
- Material containing biodegradable material
- Frozen Material

2.3 Placement and Compaction

2.3.1 Materials being used to form the separation bund shall be placed in ≤ 600mm layers and method compacted to 300mm under the supervision of the Engineer. The orientation of the bund shall be in accordance with the prescribed slope set out in the stability assessment.

2.4 Adverse Conditions

2.4.1 Construction of the separation bund shall not take place during wet or frozen conditions. The Engineer shall have responsibility for determining what suitable conditions are. Should environmental conditions change during construction the Engineer will determine the suitability of the commencing surface prior to continuation.

2.5 Record Keeping

2.5.1 The Engineer shall produce a written record of the construction of the bund recording the following information.

- A phased drawing indicating the extent and progress of bund construction
- Information regarding the source and nature of selected material
- Empirical Moisture Content records
- Compaction methodology and lift thickness
- Record of observed shear strength
- Final Bund Dimensions
- Weather Records
- Plant Records
- Attending Personnel.

2.5.2 The location and extent of the bund shall be topographically surveyed after construction to ensure that an accurate record of its location is maintained. Future gas infrastructure will only be installed with due regard to this information. No gas infrastructure will be placed inside the SNRHW cell.

2.5.3 The extent of the separation bund will be marked out onsite with pegs to provide visual markers during construction to ensure the correct orientation is achieved. Furthermore 2m marker posts will be installed during operation to ensure SNRHW is placed on the appropriate side of the separation bund.

3.0 WATER MANAGEMENT

3.1 General

It will be necessary to ensure that the SNRHW waste is not affected by the leachates generated by the adjacent biodegradable non-hazardous waste. Whereas Gypsum and high sulphate wastes react adversely to leachate creating hydrogen sulphide gas this will not be the case with the proposed cell as it will be exclusively designated to Asbestos. Nevertheless the proposals will mitigate the chance of cross contamination of leachate, enabling an easier, safer and more cost effective leachate control by managing both cells autonomously.

3.2 Leachate management within the Non Hazardous Cell

The leachate management within the adjacent non-hazardous cell will be as currently provided throughout the existing cells using 250 and 315mm PN10 slotted HDPE pipes as side risers. The internal separation bund will be constructed with a supplemental cuspated drainage net fed back into the basal aggregate that will provide a preferential pathway for any fugitive perched leachate within the landfill mass.

3.3 Surface water management within the SNRHW Cell

3.3.1 The surface water side risers will be constructed in accordance with the details shown on Drg No 14739/155/003 and shall comprise 250mm / 315mm SDR11 PN10 Pipe slotted over 2/3 of its circumference with a slot width maximum 5mm wide and 25mm in length spaced to give a 10% open area. The pipework shall be welded using electro-fusion techniques and be surrounded by 500mm of single sized 40mm non-calcarious aggregate wrapped in a separation geotextile lapped by 500mm.

3.3.2 Once constructed the cell will impound any surface water that gathers by virtue of its own topography and the presence of the low permeability bund between that and the adjacent non-hazardous cell. As the asbestos is placed in their respective cells the cover material will be placed at a gradient of 1in 50 to the central sump where the accumulated run off will be removed by a submersible pump.

3.3.3 The pump will discharge the runoff to an isolation lagoon via a sand filtration system where it will be tested for the presence of asbestos fibres before discharge to the water course. Should asbestos fibres be found then the water shall be re filtered prior to re testing and ultimately discharge.

3.3.4 The sand filtration system will be regularly maintained based on the volume of run off treated and the amount of SNRW landfilled. Any sand removed from the filter will be deposited as within the SNRW cell.

4.0 CELL DEVELOPMENT AND CLOSURE

4.1 Cell Completion

The SNRW cell will be landfilled progressively to within 2.6m of its permitted pre settlement level. This level will be commensurate with the other 3 Non Hazardous waste cells in accordance with the stability assessment.

After landfilling has ceased 2.0m of inert soils shall be placed and shaped prior to the application of the final capping system of geo-synthetic drainage netting and Linear Low Density Polyethylene (LLDP) membrane overlain with 600mm of protection soils. This cap will again be integrated with the other cells of the landfill.

4.2 Gas Collection

4.2.1 Asbestos is not biodegradable and as such landfill gas is not expected to evolve within the SNRHW. The proposals offered for the separation bund and the application of the drainage net are expected to provide suitable preferential pathways to prevent the migration of gas from the adjoining non-hazardous waste cells.

4.2.2 Should the situation arise where gas does migrate from the adjoining cell it will be intercepted by the geo-composite drainage / gas net installed as part of the capping system and transferred to the gas extraction infrastructure in the normal way. Active gas management within the non-hazardous waste cell will minimise the potential for such migration of gas outside of these cells.

5.0 SNRHW ACCEPTANCE PROCEDURES

5.1 General

The proposal of Newport City Council is to attract Asbestos Waste from the following sources:

- Domestic asbestos accepted via its Household Waste recycling centre (HWRC) in small quantities.
- Bagged commercial asbestos accepted to a purpose built skip bay within a designated relay area.
- Commercial asbestos skips accepted to a new designated relay area.
- Asbestos bearing soils accepted directly to the SNRHW cell by booking only.

Asbestos waste in bags or skips will be accepted onsite to the designated relay area Monday – Friday between 7:30 and 15:30 by booking in with the weighbridge 24hrs prior to delivery. The customer will be asked to provide the following information during the booking process:

- Type of waste, category of asbestos
- Asbestos test certificates
- Licence
- Origin
- How the Waste Bagged. Is it in accordance with the Control of Asbestos Regulations (CAR) 2012 and/or the Carriage of Dangerous goods (CDG) Regulations 2009. In practice this means double bagged or double wrapped. Bagging will involve using a red inner bag with the asbestos warning label and an outer clear bag with the CDG symbol. Wrapped items should be similarly labelled.
- Appropriate PPE may be required onsite as detailed below
  Oversized disposable overalls. Type 5 (BS EN ISO 13982-1) are suitable with taped cuffs and ankles

  Disposable single use gloves

  Respiratory Protection with a minimum assigned Protection factor of 20: EG To standard EN149 (type FFP3) or EN1827 (type FMP3)

It is proposed to open and close the asbestos cell once a week in one daily operation. On this day asbestos waste will be accepted directly to the tipping face. The waste acceptance procedures for each source is set out herein and must be read in conjunction with the risk assessment set out in appendix ??, Drawing Number ?? and the procedure set out in section 6.0

5.2 SNRHW RELAY AREA acceptance procedures

The relay area will be used to accept skipped waste originating from 3rd party customers or from the Recycling Centre at the front of the site. The majority of the skips will be sealed and locked on delivery to the relay area with the exception of one open skip that will accommodate customers delivering commercial bagged asbestos waste. This skip will be in a separate bunded area and subject to its own acceptance procedures.

5.2.1 Asbestos collected at the HWRC

The HWRC currently operates a waste skip currently designated for small quantities of double bagged cement bound asbestos boards that is currently transferred offsite.

- Once a skip fills, a council hook lift will load the skip and approach the weighbridge where the waste will be weighed, designated and logged with the weighbridge operator.
- The waste will then be transferred to the designated relay area where it will await transfer to the SNRHW Cell.

5.2.2 Commercially accepted bagged asbestos waste

- Asbestos of this nature will only be accepted onsite if it has been booked in 24rhs prior to delivery. At the time of booking the client will be told to provide the requisite information outlined at the time of booking.
- The waste carrier will enter the site from the main access off the A48 SDR carriageway.
- The load will approach the weighbridge where the load will be subject to a level 3 waste inspection procedure as outlined in Appendix A. On compliance the load shall be weighed and a banks man assigned to the delivery.
- The banks man will lead the vehicle to the asbestos relay area and to the forecourt of the designated asbestos skip. The client will be instructed to put on the agreed PPE if necessary.
- The Banks man will inspect the waste, validating that it is appropriately packaged and labelled in accordance with the Control of Asbestos Regulations (CAR) 2012 and or the Carriage of Dangerous goods (CDG) Regulations 2009. In practice this means double bagged or double wrapped. Bagging will involve using a red inner bag with the asbestos warning label and an outer clear bag with the CDG symbol. Wrapped items should be similarly labelled. Asbestos not delivered in this way will be rejected.
- The client will deposits any single use PPE into the skip after the operation is complete
- The vehicle will be led back to the weighbridge where it weighs and payment is taken. The vehicle will then leave the site.
- Any asbestos that emits from ruptured or unfastened bags will be dealt with as described in Appendix H Contingency measures

5.2.3 Commercially accepted covered asbestos skips

- The waste carrier will enter the site from the main access off the A48 SDR carriageway.
- The load will approach the weighbridge where the load will be subject to a level 3 waste inspection procedure as outlined in Appendix A. On compliance the load shall be weighed and a banks man assigned to the delivery.
- On compliance the load will be weighed and a banks man assigned to the delivery.
- The banks man will lead the vehicle to the asbestos relay area and to the forecourt of the designated asbestos skip.
- The carrier will deposit the skips in the allocated bays and will then be led from the area back to the weighbridge where a TARE charge is levied.

5.3 SNRHW Accepted directly to the tipping face

- No asbestos bearing soils will be accepted onto the relay area. All such soils must be delivered directly to the cell on open days by booking the delivery 24hrs in advance. Skip waste may also be delivered in this way for customers wishing to take skips away with them.
- The load will approach the weighbridge where the load will be subject to a level 3 waste inspection procedure as outlined in Appendix A. On compliance the load shall be weighed and a banks man assigned to the delivery.
- On compliance the load will be weighed and a banks man assigned to the delivery. The driver will be requested to wear the appropriate PPE outlined if manual operation is likely.
- The banks man will ensure asbestos entering the site is sheeted or in contained skips. He will then lead the customer to the SNRHW cell and direct them to the tipping face by two way radio.
- Tipping will then commence in accordance with the procedures set out in section 6.0

- The sub cell will have been prepared the previous day as described in section 6.0 and before tipping commences wind direction will be checked by observing the onsite windsock. Should the wind direction prove unreliable, operations should be stopped or moved to a different cell that can be filled up wind ensure no personnel are downwind of tipping operations.
- A weather station is situated at the site offices. This provides real time weather data enabling the operator to coordinate operations with due regard to wind strength and direction.

6.0 SNRHW CELL OPERATIONAL PROCEDURES

6.1 General

6.1.1 The configuration of the SNRHW cell is set out on Drg 14739/155/001 and 2505 001 and the proposals for the separation bund are shown on Drg Number 2505 001 these drawings identify the proposed sub cell configuration and the anticipated access routes into the tipping area.

Furthermore they show the location of the Environmental controls set out in section 7 including sand filters for surface water and air quality monitoring locations.

6.1.2 It is anticipated that tipping to the Stable non-Reactive Hazardous Waste Cell will be restricted to one day a week. The cell will be divided into a number of sub cells each of which will be prepared beforehand and hold a unique cell reference related to the date of tipping.

6.1.3 All operatives that work within the SNRHW acceptance and tipping areas will be trained with regard to asbestos awareness and correct use of PPE. A training matrix is included in Appendix D that will be adopted for the running of this cell

6.2 SNRHW Tipping Procedures

- Prior to landfilling all council drivers will be inducted in accordance with the information set out in Appendix C. All drivers and supervisory banks men will be advised as to the haul route in use for the operation.
- The landfill manager will consult the weather forecast and adjust tipping protocols ensuring all operatives are upwind of any tipping sequence. Tipping of dry waste will be prohibited in high winds without prior dampening.
- All vehicles and environmental controls will be maintained on the current plant maintenance schedule.
- All vehicles that work within the SNRHW cell will be fitted with Asbestos filters.
- Fresh PPE will be issued prior to the operation including:

  Oversized disposable overalls. Type 5 (BS EN ISO 13982-1)
  Disposable single use gloves
  Respiratory Protection with a minimum assigned Protection factor of 20: EG To standard EN149 (type FFP3) or EN1827 (type FMP3)

- Prior to tipping the banks-man will inspect the waste and any evident loose material will be dampened down using the onsite bowser.
- The asbestos waste will be deposited in the assigned cell under the control of a council trained banks-man and covered to a depth of 0.5m immediately with acceptable Non Hazardous waste that excludes biodegradable waste. This cover material will be taken from a stockpile located adjacent to any live sub cell. Should there be a shortfall in this material inert sub soil will be used.
- Once placed the cover material will be compacted using the tracks of the vehicles. Traction material will then be placed to ensure road going vehicles do not get stuck.
- Any operative that has to leave his vehicle will wear the designated disposable PPE. This PPE will be deposited in the waste cell once it has been used. Re use will not be allowed.
- All vehicles will be washed down using the onsite power washer draining all water into the asbestos sub cell.

7.0 ENVIRONMENTAL MONITORING

7.1 General

An air quality report was prepared in 2004 as part of the IPPC permit. The primary aim of the report was to provide information on background conditions around the site and to assess the potential impacts of the landfill operation on dust and odour nuisance. The report is referenced because its assessment of the general dust nuisance presented by the site and the receptors within 1km of the site boundary remain relevant today.

Clearly the proposal to tip asbestos presents different health and safety risks, and so a specific risk assessment has been prepared and presented in Appendix F and the proposed mitigations built into the working procedures.

7.2 Arrangements

Three months prior to opening the asbestos cell NCC intends to conduct asbestos air quality monitoring on a weekly basis in order to establish a baseline reading by which all subsequent readings can be compared. Once open monitoring will be conducted once a fortnight in the same locations

7.2.1 Monitoring will be focussed in two areas as identified on Drawing 2505 - 001

Along the boundary fence line in three locations between the landfill and Associated British Ports to the south east.

On the existing landfill within the proposed SNRHW cell and the adjacent NHW cell.

7.2.2 Air quality monitoring will be conducted by UCAS accredited 3rd party providers with fibre count capabilities in accordance with the HSE document HSG248 *'Asbestos: The analysts guide for sampling, analysing and clearance procedures'* and the requirements of Environment Agency Guidance note M17 *'monitoring Particulate Matter in Ambient Air around Waste Facilities'*

7.2.3 The method of filter analysis will be Phase Contrast Microscopy (PCM) due to its versatility in most situations.

Appendix A – Weighbridge Waste Acceptance

Waste Acceptance

WASTE ACCEPTANCE STAGE	REFERENCES
Level 1 Basic	CHARACTERISTICS OF WASTE Inspection of waste to assess the characteristics of waste destined for landfill. EWC Codes provided by producer.
Level 2 Compliance Testing Level 3 Verification of Waste	WAC guidance review and inspection and acceptance of waste into non-hazardous landfill. SAMPLE PLAN: including procedures for sampling and testing of waste, a method of recording the results.
Method for ensuring that waste is stored and handled properly prior to final deposit.	Standard operating procedures for non- hazardous wastes.

Inspection of Waste

The following procedure is an adaption of the current inspection protocol used for all waste the facility is licenced or is seeking a licence to accept. The changes now cover the acceptance of SNRHW and in this respect is at a level 3 inspection.

Level 1

Inspection of basic characterisation of waste, visual inspection to ensure waste complies with the site licence; all deliveries will enter site from the A48 and a visual inspection of waste carried out where practicable.
Weighbridge staff will inspect relevant environmental documentation to ensure waste is clearly described and documented (Controlled Waste Transfer Notes, Duty of Care).
Operators licence to carry waste will be inspected to ensure validity; a photocopy will be kept on file.

Waste material will be inspected to ensure compliance with the landfill directive, waste will be assessed to ensure that material has been pre-treated / manually or mechanically sorted to ensure that all waste accepted complies with current Environmental Legislation. In the case of SNRHW material (asbestos) checks will ensure that the waste is appropriately bagged on delivery.

Pre- treatment declaration forms will be checked and copies stored for reference and regulatory checks.

Each load will be recorded on the site data base, logging the following:-

1. Weight of waste
2. Description of waste
3. Waste Code
4. Date
5. Vehicle registration
6. Account Name
7. Duty of care registration number.
8. In the case of SNRHW the cell number the waste will be deposited in.

All waste barn operatives and SNRHW banks men will be trained in waste acceptance / rejection procedures to ensure compliance with the site licence.

The site weighbridge will be calibrated yearly.

Vehicles will be allowed to travel only to the correct disposal point when onsite.

With regards to non-hazardous waste the material will have another visual inspection by the traffic controller and the loading shovel operator once in the waste reception barn.

SNRHW will not be disturbed from its packaging for inspection due to adverse health and safety implications.

All vehicles will be re weighed on departure to obtain accurate net weights and consequently accurate waste tonnages.

Vehicle drivers will be given a weighbridge ticket and a signed copy of a Waste Transfer Note.

Machine operators in waste reception areas and traffic controllers are in radio contact with the weighbridge operator and the site supervisor

Level 2

Waste acceptance procedure (WAC) will be the same as Level 1, with additional checks at the weighbridge and supervisor of the landfill site, records of inspection will be recorded and any changes in the basic characteristics of the waste material.

The waste producer shall be notified that all materials delivered to the site will be inspected to ensure accurate description, characterisation between the waste and documentation.

Level 3

Waste Acceptance Criteria levels 1 and 2 will apply here. All new contracts / waste streams delivered to site from commercial / industrial premises will have to submit prior to delivery an up to date chemical analysis to ensure that all waste complies with our current Environmental Permit. In the case of SNRHW (Asbestos) the carrier will have to identify the category of asbestos.

Docks-way waste disposal site has a contractual arrangement with accredited external Laboratory Services.

Incompatible Waste

Incompatible Waste will be kept separate in a designated quarantine area adjacent to the waste reception barn. Material will be risk assessed on an individual need and guidance will be sought from Natural Resources Wales if high risk material is identified. Material that is incompatible must be consigned using waste transfer notes and a record of the incident will be kept onsite for the regulators inspection.

The landfill manager will contact Natural Resources Wales by telephone as soon as practicable if he considers the material to be a risk to the environment or human health.

Removal of Incompatible waste

Full environmental documentation will be available to allow the environmental regulator to conduct a full waste audit, to ensure that the waste can be traced to its final destination.

NRW notification of rejected waste

Docksway Landfill site will keep records of all material rejected from the landfill site. A rejection notice will be issued to the delivery driver stating the reason why the materials/waste have failed our acceptance criteria and following a risk assessment will reject/consign the material/waste back to its origin or telephone the NRW for advice when we will either:-

1. Consign the material from Docks-way back to the manufacturer/industrial premises.

2. Place the material in our holding area for further investigation or tests.

Option (2) requires a risk assessment for environmental impact and health and safety.

All transactions will comply with current environmental/health and safety legislation, allowing the Environment Agency to carry out a full audit.

All materials will be moved off site as soon as possible and a report will be submitted to the Environment Agency and documented evidence will be available for inspection.

Appendix B – SNRHW Cell Log

Cell Reference	Date Constructed	Date Landfilled	Date Sealed	Waste consignment reference

Appendix C – Induction Agenda

This induction should be conducted on a weekly basis at least 24hrs prior to the exercise. This list constitutes the subject matter that should be discussed prior to the deposition phase.

1. Identify the personnel and plant allocated to the task.
2. Identify the amount of asbestos waste that is stockpiled or booked into the facility for landfilling
3. Identify the cell proposed for the day's activity discussing the proposed haul routes allocated to the task.
4. Interrogate the days weather forecast and the impact of wind direction and rain on the activity.
5. Identify the daily cover soils allocated to the task
6. Review the risk assessment and ensure its continued relevance.
7. Discuss the lessons learnt from the previous activity.
8. Anticipated forms of communication ensuring two way radios are available for all deliveries.
9. Review the PPE required and reinforce its use at all times

Appendix D – Training Log

TRAINING – EMPLOYEE SAFETY TRAINING RECORD

Name:	Job Title:
Department:	Date of Employment:

Date	Training Received	Detailed Record Reference No.

Appendix E – PPE / Vehicle Inspection Log

PPE ASSESSMENT – CHECKLIST

Assessor (s)	
Date	
Activity requiring PPE	
Risk Assessment Reference No.	
Hazards Requiring PPE	Nature of the Hazard
Description of job (methods, time, communications, area, effort etc)	
Part(s) of the body at risk	
People at risk	
Health conditions	
Will the PPE increase risks?	
Compatibility with other PPE in use?	
Possible PPE suppliers and types	
Date trial of PPE started	
People involved in trial	
Results of the trial	
PPE Selected	
Risk Level (with PPE in use)	
Does the PPE adequately control the risk(s)?	Yes ☐ No ☐
Assessment Review Date	

PPE - RECORD OF MAINTENANCE

Type of Protective Equipment	
Make / Model	
Holder / User	

Date	Defect/damage/wear	Action Required	Signature

PPE: RECORD OF ISSUE

NAME OF EMPLOYEE:		EMPLOYEE NO.	SECTION/DEPT:	
Date of Issue	**Time of Issue**	**Description of Personal Protective Equipment Issued**	**Received By (Name)**	**Received By (Signature)**

The issue of personal protective equipment (on an individual basis) should be recorded above.

PPE: RECORD OF ISSUE

NAME OF EMPLOYEE:		EMPLOYEE NO.	SECTION/DEPT:	
Date of Issue	**Time of Issue**	**Description of Personal Protective Equipment Issued**	**Received By (Name)**	**Received By (Signature)**

The issue of personal protective equipment (on an individual basis) should be recorded above.

MACHINERY MAINTENANCE RECORD

Machine Type	
Location	
Manufacturer	
Model Type	
Serial Number	
Identification Number	
Date Commissioned	

MAINTENANCE HISTORY	
Date	Work Details

MACHINERY - REGISTER OF PLANT, EQUIPMENT AND FREQUENCY OF MAINTENANCE

Identification Number	Commission Date	Machinery Description	Location	FREQUENCY			
				M	Q	B	A

M = Monthly **Q** = Quarterly **B** = Every 6 months **A** = Annually

Appendix F – Health and Safety Risk Assessment

RISK ASSESSMENT REGISTER - GENERAL RISKS

Location	Assessment Ref.	Workplace/Work Activity/Process	Risk Assessment	Date
Weighbridge / SNRHW Relay area	SNRHW 01	Receipt of Asbestos Waste deliveries	Yes	10/04/15
		Inspection of Waste	Yes	"
		Transfer of Waste to Skip	Yes	
Asbestos Cell	SNRHW 02	Carriage onsite of Asbestos Waste	Yes	10/04/15
		Landfill Operation	Yes	"

Company Name: Newport City Council Document Reference: SNRHW 01

Contract: On-going Asbestos Acceptance and Landfilling

Principle Task: Waste Acceptance

Sub Category: Control Of Vehicles Entering and leaving the area

HAZARDS	WHO CAN BE HARMED AND HOW	PROPOSED CONTROL MEASURES	FURTHER CONTROL MEASURES	ACTION BY WHO	ACTION BY WHEN	ACTION COMPLETED DATED
Heavy goods vehicles	Site Operatives Collision of pedestrians and vehicles	All vehicles to be pre informed of the speed limit, this is to be rigorously enforced onsite All vehicles to stop at the designated places, at the weigh bridge and at the vehicle control area at the waste barn	Banks man to be allocated to each delivery	NCC	Delivery	On going

Company Name: Newport City Council Document Reference: SNRHW 01

Contract: On-going Asbestos Acceptance and Landfilling

Principle Task: Waste Acceptance

Sub Category: Inspection of Waste

HAZARDS	WHO CAN BE HARMED AND HOW	PROPOSED CONTROL MEASURES	FURTHER CONTROL MEASURES	ACTION BY WHO	ACTION BY WHEN	ACTION COMPLETED DATED
Asbestos fibres airborne	Site Operatives. Asbestos respiration on Inspection	All customers informed of the conditions for acceptance of waste. (double bagged) All inspections to be carried out after without disturbing the load. Any observed waste not bagged will be rejected.	Inspection to be conducted using full Asbestos PPE Hand held misting units will be available for each inspection	NCC	Delivery	On going

Company Name: Newport City Council Document Reference: SNRHW 01

Contract: On-going Asbestos Acceptance and Landfilling

Principle Task: Waste Acceptance

Sub Category: Transfer of asbestos waste within the relay area

HAZARDS	WHO CAN BE HARMED AND HOW	PROPOSED CONTROL MEASURES	FURTHER CONTROL MEASURES	ACTION BY WHO	ACTION BY WHEN	ACTION COMPLETED DATED
Asbestos fibres airborne	Site Operatives, Customers. Respiration on Transfer	All customers informed of the conditions for acceptance of waste. (double bagged) Any observed waste not bagged will be rejected at the inspection stage All transfer to be conducted within the designated bunded area away from other operations. The reception skip will be lockable. Operation will be prohibited in high winds subject to a separate assessment of risk.	All Asbestos handling to be conducted using full Asbestos PPE All PPE to be disposed of at source. Hand held misting units will be available for each Transfer operation.	NCC, customer.	Delivery	On going

Company Name: Newport City Council Document Reference: SNRHW 01

Contract: On-going Asbestos Acceptance and Landfilling

Principle Task: Waste Disposal

Sub Category: Delivery to the asbestos cells

HAZARDS	WHO CAN BE HARMED AND HOW	PROPOSED CONTROL MEASURES	FURTHER CONTROL MEASURES	ACTION BY WHO	ACTION BY WHEN	ACTION COMPLETED DATED
Heavy goods vehicles	Site Operatives Collision of pedestrians and vehicles Vehicle overturning on unstable ground. Impact injuries Skip lorries stuck at disposal face. Injuries sustained in recover, towing	All Vehicles must stay within the prescribed delivery routes. This route will be determined at the start of shift and indicated to all operatives in the vicinity. The access provided must be checked at regular intervals to ensure that there is no subsidence or potholes that will throw the vehicles off camber. This interval should be at least 2 days before use. Specific recovery procedure designed with appropriate rated and checked tow chains at the site.	Drivers encouraged to report any noticeable deterioration in the integrity of the road Two way radios available for constant communication	NCC	On going	On going
Asbestos fibres airborne	Site Operatives, Customers. Respiration on Transfer	All operatives trained in asbestos awareness No waste accepted that isn't double bagged and secure Misting and dampening equipment available at the point of delivery Wind sock located onsite for accurate indication of wind direction. Robust environmental air monitoring to provide on-going assessment of migration of particles. Banks-man coordinating the deposition activity. Full appropriate, disposable PPE to be worn at all times by persons leaving the vehicles. The asbestos waste will be only disposed of in the pre-arranged cell and covered immediately with soils /	Asbestos monitoring will be undertaken twice monthly during asbestos deposition. Asbestos fibre monitoring will be conducted upwind and downwind of the SNRHW as outlined in section 8 of the Construction and operational management plan.	NCC, customer.	Delivery	On going

		wastes accepted in the permit. Asbestos filters will be fitted on the excavator working on the SNRHW cell and the operator will be afforded the same PPE as the banks-man.				

Appendix G – Drawings

2505 - 001	Proposed General Arrangement
14739/155/001	General Arrangement and Leachate Extraction Detail
14739/155/002	Earthworks Details
14739/155/003	Leachate Management Details
14739/155/004	Typical Cross sections
Figure 1	Site Location Plan
Figure 2	Pre settlement Restoration Profile
Figure 3	Post Settlement Restoration Profile