

TEESWORKS

Teesworks COMAH  
Inventory and  
Demolition  
Programme

# COMAH Substances Onsite by Category & Qualifying Limits (T)

<b>34. Petroleum Products &amp; Alternative Fuels</b>	<b>Lower Tier</b>	<b>Upper Tier</b>
Gas oils (including diesel fuels, home heating oils and gas oil blending streams)	2,500	25,000
Heavy Fuel Oils		
<b>H2 Acute Toxic – Category 3, inhalation exposure route</b>	<b>Lower Tier</b>	<b>Upper Tier</b>
Crude Benzole	50	200
<b>P7 Pyrophoric Liquids and Solids in Pyrophoric Liquids Cat.1 or Pyrophoric Solids Cat.1</b>	<b>Lower Tier</b>	<b>Upper Tier</b>
Coke Oven Gas Main Deposits	50	200
<b>E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1</b>	<b>Lower Tier</b>	<b>Upper Tier</b>
Gasholder Sealant	100	200
Naphthalene		
<b>E2 Hazardous to the Aquatic Environment in Category Chronic 2</b>	<b>Lower Tier</b>	<b>Upper Tier</b>
Benzole Absorbing Oil/Creosote	200	500
Coal Tar		

# COMAH Substances by Plant Area (in tonnes): March 2021

Redcar Coke Ovens		South Bank Coke Ovens		Redcar Power Station	
Gas Oils	11.05	Gas Oils	0.23	Gas Oils	37
Crude Benzole	28.69	Heavy Fuel Oil	43.52	Heavy Fuel Oil	30
Coke Oven Gas Main Deposits	1410.8	Crude Benzole	4.56	<b>Raw Materials Handling</b>	
Gasholder Sealant	136.62	Coke Oven Gas Main Deposits	1293.46	Gas Oils	0.49
Naphthalene	520.3	Naphthalene	465.61	<b>Redcar Blast Furnace</b>	
Benzole Absorbing Oil/Creosote	299.04	Benzole Absorbing Oil/Creosote	321.28	Gas Oils	9
Coal Tar	2657.24	Coal Tar	5043.8	<b>Steel House</b>	
<b>Arterial Mains</b>		<b>Steelmaking</b>		Gas Oils	0.3
Heavy Fuel Oil	184	Gas Oils	3.5	<b>Fuel Services Area</b>	
Coke Oven Gas Main Deposits	2503.31	Coke Oven Gas Main Deposits	1137.87	Heavy Fuel Oil	1224
Naphthalene	901.13	Naphthalene	409.61	<b>Site Totals</b>	
				Pet. Products & Alt. Fuels	1543.09
				H2 Acute Toxic	33.19
				P7 Pyrophoric	6345.44
				E1 Haz. to Aquatic Environment	2433.27
				E2 Haz. to Aquatic Environment	8321.36

Key:

Below Lower Tier

Above Lower Tier, Below Upper Tier

Above Upper Tier

Inventory excludes: Cleveland Oil Installation (demolished), TLRs-SBCO Arterial Main (cleaned), Steelmaking Gas Oil Tank CC5 (drained), diesel drums in BOS Alloy Store (removed)

While material has been removed from the demolished Ammonia Washers at SBCO, ti

# COMAH Substances by Plant Area (in tonnes): *August 2021 Update (italics)*

Redcar Coke Ovens		South Bank Coke Ovens		Redcar Power Station	
Gas Oils	11.05	Gas Oils	0.23	Gas Oils	37
Crude Benzole	28.69	Heavy Fuel Oil	43.52	Heavy Fuel Oil	30
Coke Oven Gas Main Deposits	1410.8	Crude Benzole	4.56	<b>Raw Materials Handling</b>	
Gasholder Sealant	136.62	Coke Oven Gas Main Deposits	647.62	Gas Oils	0.49
Naphthalene	520.3	Naphthalene	233.13	<b>Redcar Blast Furnace</b>	
Benzole Absorbing Oil/Creosote	299.04	Benzole Absorbing Oil/Creosote	321.28	Gas Oils	9
Coal Tar	2657.24	Coal Tar	4873.6	<b>Steel House</b>	
<b>Arterial Mains</b>		<b>Steelmaking</b>		Gas Oils	0.3
Heavy Fuel Oil	155.3	Gas Oils	3.5	<b>Fuel Services Area</b>	
Coke Oven Gas Main Deposits	2241.26	Coke Oven Gas Main Deposits	853.403	Heavy Fuel Oil	1224
Naphthalene	806.8	Naphthalene	307.208	<b>Site Totals</b>	
				Pet. Products & Alt. Fuels	1515
				H2 Acute Toxic	31.96
				P7 Pyrophoric	5153.08
				E1 Haz. to Aquatic Environment	2004.05
				E2 Haz. to Aquatic Environment	8151.17

Key:

Below Lower Tier

Above Lower Tier, Below Upper Tier

Above Upper Tier

*Inventory excludes: Cleveland Oil Installation (demolished), TLRs-SBCO Arterial Main (cleaned), Steelmaking Gas Oil Tank CC5 (drained), diesel drums in BOS Alloy Store (removed)*

*The inventory has been reduced to reflect the demolition of the SBCO Ammonia Washers, although the HSE have not yet permitted the material to be removed from site.*

*The coal tar inventory has been reduced to reflect the removal of material by Keltbray for analysis.*

# South Bank Coke Ovens



## Assumptions:

- Ammonia and Benzole Washers covers inventory within towers and downcomers only.
- By-Products demolition includes contents of Effluent Tank No.4, currently in mobile storage tanks as part of Decontamination Project (122.36t Coal Tar)
- By-Products demolition includes Coke Oven Gas Main in that plant
- By-Products demolition includes removal of condensate pots (15 for SBCO, 0.08t Coal Tar)

**Conclusion:** assuming Coal Tar Mix is removed before then, SBCO will be below the Lower Tier for all substances by 01/07/2022.

## Ammonia Washers (06/04/21-18/06/21):

- 256.87t Coke Oven Gas Main Deposits
- 92.47t Naphthalene

August 2021 Update: Ammonia Washers demolished; waste removal from site pending.

## Coke Ovens Battery (21/05/21-29/10/21)

No impact on COMAH Inventory

## Gas Holder (16/08/21-01/07/22)

No impact on COMAH Inventory

## By-Products (02/08/21-29/07/22)

- 0.23t Gas Oil
- 43.52t Heavy Fuel Oil
- 4.56t Crude Benzole
- 1036.59t Coke Oven Gas Main Deposits
- 373.14t Naphthalene
- 321.29t Benzole Absorbing Oil/Creosote
- 1563.8t Coal Tar

August 2021 Update: COGM outside of By-Products being tackled as part of Coke Ovens Battery – East Project:

- Battery Cellars Distribution System – 100% complete
- Battery Alleys Warm-Up – 100% complete
- Battery Warm-Up Supply from Jubilee Way to Battery – 100% complete
- Triple Gas Flare Stacks – 100% complete

Estimated that approx. 50% of the LP Main has been cleaned.

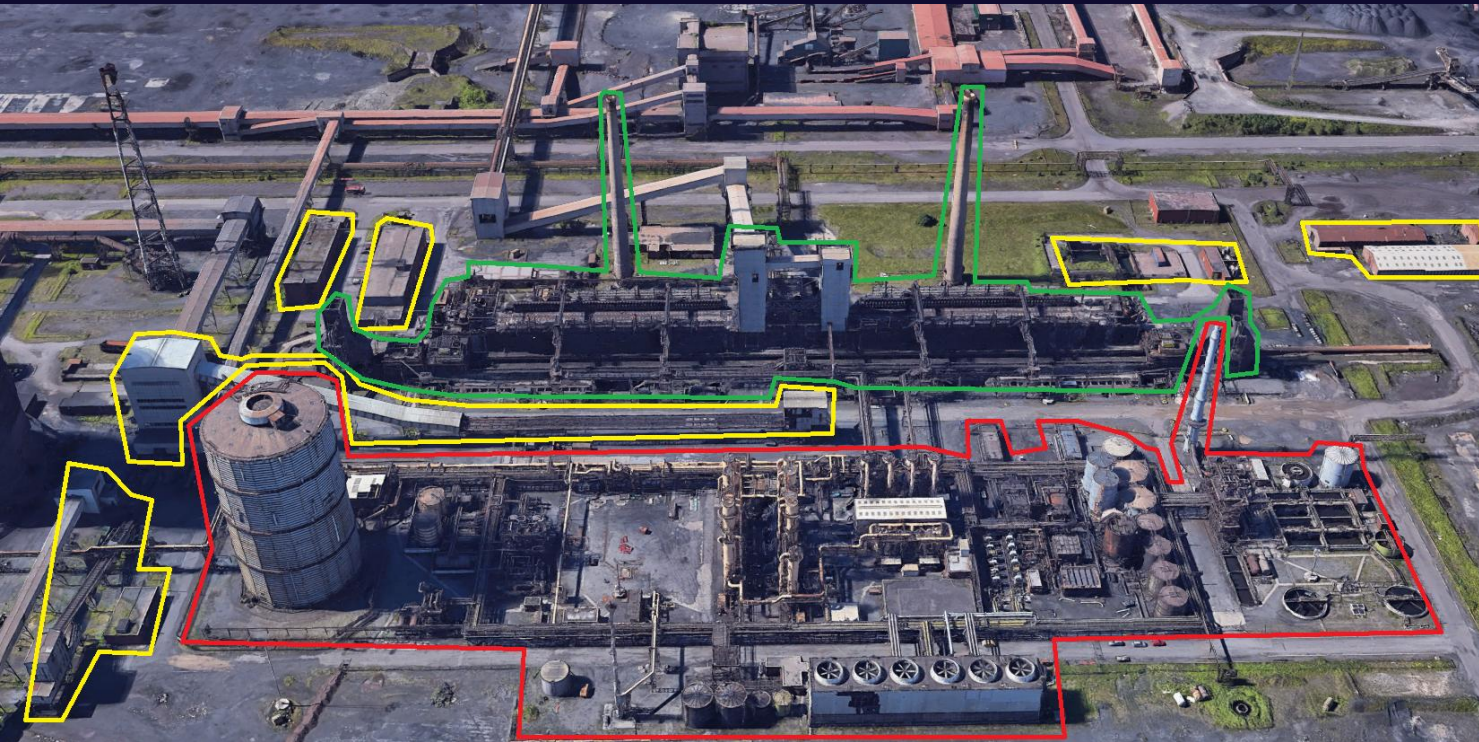
Coal Tar from No.4 Effluent Tank removed as part of Decontamination Project. Benzole storage tank demolished.

## Coal Tar Mix ('Jollop' Pile) (Not in Demolition Programme)

- 3480t Coal Tar

August 2021 Update: Keltbray identifying disposal routes; 47.84T removed as part of sampling/testing exercises.

# Redcar Coke Ovens



## By-Products (02/08/21-29/07/22)

- 1.95t Gas Oil
- 28.69t Crude Benzole
- 1409.56t Coke Oven Gas Main Deposits
- 136.62t Gasholder Sealant
- 519.92t Naphthalene
- 299.04t Benzole Absorbing Oil/Creosote
- 2657.24t Coal Tar

## Peripheral Facilities (02/08/21-01/07/22)

- 9.1t Gas Oil
- 0.4t Coke Oven Gas Main Deposits
- 0.14t Naphthalene

## Battery (02/08/21-01/07/22)

- 0.67t Coke Oven Gas Main Deposits
- 0.24t Naphthalene

### Assumptions:

- By-Products demolition includes Coke Oven Gas Main in that plant

Conclusion: RCO will be **below Lower Tier** for all COMAH substances by 01/07/2022, although small numbers of COMAH substances will remain. Under the current programme and assuming the arterial main has been decontaminated, the demolition of RCO By-Products will result in the Teesworks site being **below Lower Tier** for all COMAH substances.

*August 2021 Update: Peripheral Facilities and Battery within Phase 1 of the Demolition Project. Fuel Services Area (containing 1224T of Heavy Fuel Oil) to be tackled by contractor for By-Products, also within Phase 1.*

# Lackenby



NB: 2.5t of Gas Oil east of Services Offices and 1t in Cable Tunnel Fire Pumphouse (not clear which demolition packages these areas fall under)

Conclusion: Lackenby will be **below Lower Tier** for all COMAH substances by 29/10/21, although small numbers of COMAH substances will remain. The Teesworks site will remain **Upper Tier** for P7 and E1 Substances.

Scrap Bay (13/04/21-21/05/21)  
*No impact on COMAH Inventory*

Coke Oven Gas Main (21/06/21-01/10/21)  
• 1137.87t Coke Oven Gas Main Deposits  
• 409.61t Naphthalene  
*August 2021 Update: decontamination in progress.*

Clarifiers (02/08/21-30/12/22)  
*No impact on COMAH Inventory*

Oxy & Propane Compounds, Export Bay (02/08/21-30/12/22)  
*No impact on COMAH Inventory*

Mould Bay & Cooling Bay (11/05/21-29/10/21)  
*No impact on COMAH Inventory*

Ancillary Buildings, Coil Plate Mill (02/08/21-30/12/22)  
*No impact on COMAH Inventory*

Slag Bay, Extraction Fan & Chimneys (02/08/21-30/12/22)  
*No impact on COMAH Inventory*

Coil Plate Mill Buildings & Transformer Pens (02/08/21-30/12/22)  
*No impact on COMAH Inventory*

Teeming Bay & Slab Caster Service Bay (02/08/21-30/12/22)  
*No impact on COMAH Inventory*

Charging, Converters, Ladles, Tundish & Casting Bays (02/08/21-30/12/22)  
*No impact on COMAH Inventory*

# Arterial Mains



## Arterial Coke Oven Gas Main: Redcar – South Bank to Redcar

- 1593.02t Coke Oven Gas Main Deposits
- 573.45t Naphthalene

## Arterial Coke Oven Gas Main: RSP/RBF/RPS

- 910.3t Coke Oven Gas Main Deposits
- 327.68t Naphthalene

### August Update: COG Timeline:

Section 2: 05/07/21-27/08/21

Section 3: 26/07/21-27/08/21

Section 4: 24/05/21-09/09/21

Section 10: 26/07/21-05/11/21

Section 9: 11/10/21-10/12/21

Section 8: 22/11/21-01/04/22

Section 11: 06/12/21-21/01/22

Section 1: 14/02/22-01/07/22

Section 5: 14/03/22-27/05/22

Section 7: 14/03/22-22/04/22

Section 6: 11/04/22-13/05/22

Section 25: 21/03/22-24/06/22

Progress to date – approx. 16.45% cleaned

## Pipework from Cleveland Oil Installation to Redcar

- 184t Heavy Fuel Oil

### August Update: HFO Timeline

Section 9: 22/11/21-18/02/22

Section 10 (Secondary Lines to RPS HFO Tank): 31/01/22-15/04/22

Section 11 (Secondary Lines to Battery HFO Tank Bund): 28/03/22-17/06/22

Pellet Plant Pipework: 20/09/21-26/11/21

FSA Pumphouse & GSA Pipework: 18/10/21-04/02/22

FSA Bund Pipework: 20/12/21-25/03/22

Progress to date: approx. 15.6% of line cleaned

NB: Does not include Lackenby arterial COG main and HFO line previously under Tata control

# Timeline: Benzole Absorbing Oil

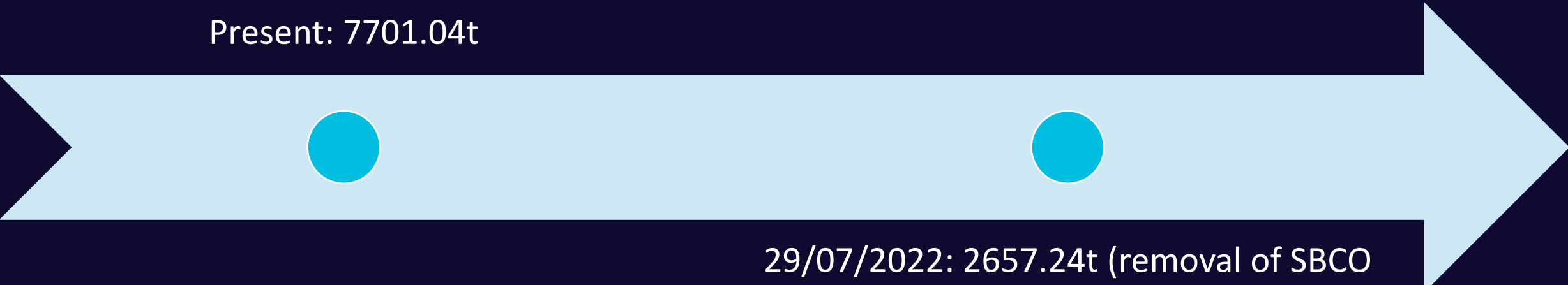
Present: 620.34t

A large, light blue arrow pointing to the right, representing a timeline. Two solid blue circles are positioned on the arrow, one on the left and one on the right, marking specific points in time.

29/07/2022: 0t (removal of SBCO & RCO By-Products). *No Benzole Absorbing Oil remaining at SBCO. Simultaneous removal of Coal Tar means the site is **below Lower Tier** for E2 Substances.*

# Timeline: Coal Tar

Present: 7701.04t



29/07/2022: 2657.24t (removal of SBCO & RCO By-Products. Also assumes that Coal Tar Mix 'jollop pile' is removed at the same time). *Site is below **Lower Tier** for Coal Tar and overall E2 Hazardous Substances*

# Timeline: Gasholder Sealant

Present: 136.62t

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29/07/2022: 0t (removal of RCO By-Products). *Site is **below Lower Tier** for Gasholder Sealant and overall for E1 Substances.*

# Timeline: Teesworks **Upper Tier** Status

18/06/2021: SBCO  
Ammonia Washers. No  
change to COMAH  
status.

01/07/2022: RCO  
Peripheral Facilities,  
SBCO & RCO By-  
Products. Site is out of  
COMAH.

01/10/2021: Lackenby  
Arterial Main: No  
change to COMAH  
status.