I object to the environmental permit application in respect of the proposed incinerator at the CVSH Belmont site.

This objection follows the Council's second 'Request for Information Notice' and is part of the Third Round of Public Consultations

Reference: S13/006

I believe approving this application would have adverse consequences on human health and the environment.

The content of this objection is based on new information and recently published data.

In addition to points raised in my previous objections I add the following points. I expand on each of the following topics in the body of my objection:

Existing Poor Air Quality and Calderdale Council's Air Quality Annual Status Report 2024

Air Quality Action Plan (2024 to 2029)

Respiratory Data - Chronic Obstructive Pulmonary Disease (COPD) and Asthma Prevalence

Bureau Veritas (BV) Human Health Risk Assessment Peer Review (HHRA)

Recent BBC Articles

1) "Burning Rubbish Now UK's Dirtiest Form of Power"
2) "Air Pollution Death Settlement"

Conclusion

Existing Poor Air Quality and Calderdale Council's Air Quality Annual Status Report 2024

The following is based on data and information sourced from the Air Quality Annual Status Report 2024 (extracts from the report are in italics).

The recently published Air Quality Annual Status Report 2024 (Published October 2024) reports existing Air Pollution (NO2) in 2023 for Sowerby Bridge (site SB1) at 41.8µg/m3, once again exceeding the 40µg/m3 limit.

4.2.1 Nitrogen Dioxide (NO2) - 4.2.1.2 AQMA No.2 (Sowerby Bridge) states *"Of the seven monitors in AQMA No.2, one was in exceedance of the annual mean air quality objective, in 2023. The highest concentration at a location of relevant exposure was recorded at site SB1 (41.8µg/m3)."*

The limit was exceeded multiple times during the year, 6 out of the 8 months (75%) of reported raw data for site SB1 exceeded the 40µg/m3 limit (see Table B.1).

The topography of Sowerby Bridge, situated in a steep sided valley, is a contributing factor to high air pollution. Pollutants cling to the valley bottom and do not disperse in the same way they would if Sowerby Bridge was situated in a different location i.e. on the top of a hill.

We are unable to change the topography of Sowerby Bridge meaning air pollution is likely to continue to be higher than at alternative locations, therefore action is required to not worsen air quality further in Sowerby Bridge.

85% (50 out of 59) of testing sites in Calderdale recorded annual mean NO2 increases in 2023.

The Air Quality Report's Conclusions and Priorities states "*Compared to 2022, annual mean NO2 concentrations in 2023 increased at 50 out of the 59 monitoring sites. Measured concentrations of NO2 exceeded the annual mean air quality objective within all <u>but</u> three AQMAs."*

The published results are potentially understated due to multiple failings in respect of the management of diffusion tubes. As stated in the Air Quality Report *"Over-exposure generally results in a reduction in measured concentrations".*

Table 3.1 (below) shows that over the last 18 Years, since Sowerby Bridge was declared an AQMA in July 2006, NO2 levels have never been compliant with Air Quality Objectives. Air pollution in Sowerby Bridge is a long-standing ongoing problem for the community and as such the Council Officers should not permit any development which would increase air pollution further.

Table 3.1 – Declared Air Quality Management Areas

AQMA Name	Date of Declaration	Pollutants and Air Quality Objectives	One Line Description	Is air quality in the AQMA influenced by roads controlled by Highways England?	Level of Exceedance: Declaration	Level of Exceedance: Current Year	Number of Years Compliant with Air Quality Objective
Calderdale No.2 Sowerby Bridge	Declared July 2006	NO2 Annual Mean	An area commencing adjacent to West Mills, West Street, Sowerby Bridge and extending along Town Hall Street and Wharf Street and ending in Upper Bolton Brow on Pye Nest Road and on Wakefield Road in Bolton Brow.	NO	53 µg/m3	41.8 µg/m3	0

Table B.1 (below) shows that during 2023 there were multiple instances of NO2 Diffusion Tube data missing for Sowerby Bridge, 4 months of data are missing for 3 of the testing sites: SB1, SB15 and SB-AQ.

Appendix B: Full Monthly Diffusion Tube Results for 2023 Table B.1 – NO2 2023 Diffusion Tube Results (µg/m3)

DT ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Mean: Raw Data	Annual Mean: Annualised and Bias Adjusted 0.88	Annual Mean: Distance Corrected to Nearest Exposure
SB1	406135	423639	31.6	52.1	44.8	44.2	51.6	41.3		39.9		50.0			43.7	**41.8**	.
SB15	406707	423824	42.2	34.1	33.0	28.5	29.3	29.7		23.0	45.4				32.8	32.3	.
SB16	406638	423836	47.9	34.7	34.3	44.4	50.0	43.3		36.9	45.1	39.9	42.8		41.5	36.6	.
SB22	405823	423395	42.7	40.8	43.3	44.2	44.8	34.1		28.4	47.4	49.8	39.0	41.9	40.6	35.7	.
SB3	405961	423571	53.1	48.8	51.7	53.9	51.8	48.7		35.0	55.0	15.1	33.5	49.2	44.9	39.5	.
SB-AQ	406075	423615	45.4	43.2	41.2	46.3	44.8					43.6	45.0	36.4	43.0	34.0	.

In addition to the missing data the Quality Assurance / Quality Control section of the Air Quality Report reports failures to deploy diffusion tubes in line with Defra's monitoring calendar in respect of (May, Jun, Aug and Dec).

The Quality Assurance / Quality Control section of the Air Quality Report states *"QA/QC of Diffusion Tube Monitoring - During 2023, Calderdale's diffusion tubes were not deployed fully in line with the Defra's monitoring calendar, with there being three cases of over-exposure (June, August and December), where tubes were exposed for over 6 weeks, and one period of underexposure (May), where the tubes were exposed for 3 weeks."*

During 2023 less than 42% (5 out of 12 months) of diffusion tube data for site SB1 should be classed as reliable. There are 7 months of missing or unreliable data, made up of: 4 months of missing data in Table B.1 (Jul, Sep, Nov & Dec) and 3 out of the 4 months reported in the QA/QC section of the Air Quality Report as being impacted by unreliable data due to failures in diffusion tube deployments (May, Jun and Aug, ignoring Dec given Dec data is missing from Table B.1 for site SB1).

Over-exposure generally results in a reduction in measured concentration levels being reported.

The Air Quality Report states "*For the December monitoring period, the diffusion tubes were removed on the 18/01/2024, meaning that the December measurements were reflective of a December 2023/ January 2024 period mean. Over-exposure generally results in a reduction in measured concentrations, and on three occasions tubes were exposed for longer than the recommended maximum amount of time (5 weeks, four days). The omittance of three periods of data (June, August and December) due to this issue was considered; however, 3 periods of data constituted over a quarter of the year, and as such, these period's omittance would have significantly reduced the amount of data available in the ASR and the new AQAP."*

Even though December diffusion tubes were overexposed, which generally results in a reduction in measured concentration levels, the December results in Table B.1 show two out of the three SB testing sites with data for December reported levels which exceeded the limit of 40µg/m3 (SB22 41.9µg/m3 and SB3 49.2µg/m3). If the tubes had not been overexposed the results for December would have likely been even higher.

The Air Quality Report states "As *December measurements were generally above the raw annual mean concentration, it was decided to retain December 2023/ January 2024 measurements as their omittance would have likely led to an even greater underprediction of measured concentrations in Calderdale, with potential ramifications for Public Health and the amendment/ revocation of AQMAs."*

I believe the reported results for 2021 and 2022 have potentially been understated. Table A.4– Annual Mean NO2 Monitoring Results: Non-Automatic Monitoring (µg/m3) shows reported results for 2021 and 2022 being below the 40µg/m3 limit. I believe these results are understated.

Table A.4 – Annual Mean NO2 Monitoring Results: Non-Automatic Monitoring (µg/m3)

Diffusion Tube ID	X OS Grid Ref (Easting)	Y OS Grid Ref (Northing)	Site Type	Valid Data Capture for Monitoring Period (%) [1]	Valid Data Capture 2023 (%) [2]	2019	2020	2021	2022	2023
SB1	406135	423639	Roadside	100	69.3	**42.0**	**40.2**	37.0	39.4	**41.8**
SB15	406707	423824	Roadside	100	71.8	34.0	27.9	30.6	27.2	32.3
SB16	406638	423836	Roadside	75	88.5	36.0	31.2	25.4	30.7	36.6
SB22	405823	423395	Roadside	75	98.4	**40.0**	34.1	33.5	31.8	35.7
SB3	405961	423571	Roadside	91.7	98.4	35.0	35.9	37.0	37.4	39.5
SB-AQ	406075	423615	Roadside	100	64.7	-	33.5	31.6	32.3	34.0

It should be noted that the National Bias Adjustment Factor was used for 2021 and a combined Local / National Bias Adjustment Factor was used for 2022 whereas Local Bias Adjustment Factors were used for 2020 and 2023.

Table C.2 – Bias Adjustment Factor

Monitoring Year	Local or National	If National, Version of National Spreadsheet	Adjustment Factor
2023	Local	-	0.88
2022	Local/ National	-	0.76
2021	National	03/22	0.78
2020	Local	-	0.87
2019	National	03/19	0.80

As stated in the Air Quality Report 2024 in relation to the 2023 results "*There is a significant difference between the national factor (0.77) and the calculated local factor (0.88). If the national factor were used instead, all locations would have been considered compliant with the national standards. As such, the choice of factor this year Local Bias Adjustment has had significant influence on the overall picture of air pollution in Calderdale."*

I believe the decision to use the National Bias Adjustment Factor for 2021 and a combined Local / National Bias Adjustment Factor for 2022 resulted in lower concentration levels being reported for those years than if a Local Bias Adjustment Factor had been applied.

Given the unique topography of Sowerby Bridge and the impact it has on air pollution (clinging to the valley bottom), I believe the use of a Local Bias Adjustment Factor rather than a much border

National Bias Adjustment Factor gives a more accurate picture of pollution levels for such a unique topographical location.

Applying an average of the 2020 and 2023 Local Bias Adjustment Factors, which are shown in Table C.2 – Bias Adjustment Factor at 0.87 and 0.88 respectively, in place of the National Bias Adjustment Factors used for 2021 and 2022 would have resulted in reported concentration levels for site SB1 of 41.5 µg/m3 and 45.4 µg/m3 respectively with both 2021 and 2022 results exceeding the 40 µg/m3 limit.

Workings – Applying a Local Bias Adjustment Factor in place of the National Bias Adjustment Factors for 2021 and 2022

	Monitoring Year	Reported results in Table A.4 – Annual Mean NO2 Monitoring Results	Local or National Bias Adjustment Factor	Adj't Factor Used	Unadjusted Value	Local Adj't Factor (Average of 2023 and 2020 used for 2022 and 2021)	Concentration Levels if Local Adjustment Factor had been used consistently
SB1	2020	40.2	Local	0.87	46.2	0.87	40.2
SB1	2021	37.0	National	0.78	47.4	0.875	41.5
SB1	2022	39.4	Local / National	0.76	51.8	0.875	45.4
SB1	2023	41.8	Local	0.88	47.5	0.88	41.8

The above calculation demonstrates that using a consistent (Local) Bias Adjustment Factor results in 2023 levels being consistent with 2019, 2020 and 2021 and that the concentration levels reported in the Air Quality Report for 2021 and 2022 have potentially been materially understated. It should also be noted that COVID lockdowns and people working from home would have resulted in a reduction in air pollution due to less road traffic especially during 2020 and 2021.

The Air Quality Report states the following reason for having chosen to use a Local Adjustment Factor for 2023. "*as the diffusion tube measurements did not fully follow the Defra Calendar, with periods of over-exposure and under-exposure, a generic National factor was not considered appropriate."*

It should be noted that 2023 is not the first time there has been a significant amount of data missing from reported results. 2021 saw no diffusion tube data for the first half of the monitoring period (January – May, and July) and June diffusion tubes were overexposed. The Air Quality Report justification (mentioned above) for using the Local Adjustment Factor for 2023 supports and suggests that a Local Adjustment Factor should have also been used for 2021 given the volume of missing data and overexposed diffusion tubes.

The Air Quality Report published in 2022 in respect of 2021 states "*During 2021, the diffusion tubes were not deployed in line with the monitoring calendar, owing primarily to staff shortages caused by COVID-19 absences. As a result, there is no diffusion tube data for the first half of the monitoring period (January – May, and July). The diffusion tubes for June were overexposed beyond the recommended 4-5 weeks, and therefore the data has been excluded (but is shown in Table B.2 for complete transparency). In the latter half of the year (i.e. August onwards), there was less disruption*

to the changing of diffusion tubes, hence there is a more continual set of data between August – November."

The repeat of multiple diffusion tube management failures in 2023 suggests the Council Officers are not proactively taking action to protect the Health and Wellbeing of Sowerby Bridge residents and visitors. If the Officers were on top of monitoring air quality these failures would not keep reoccurring.

Air Quality Action Plan (AQAP 2024 to 2029)

The following is based on data and information sourced from the Air Quality Action Plan (AQAP 2024 to 2029) (extracts from the report are in italics).

Calderdale Council's new Air Quality Action Plan (2024 – 2029) has recently been approved by Defra. I note this has not as yet been published on the Council's website (maybe they are waiting until after this consultation period ends to do so) however a copy has been sourced from the Environmental Officers.

The new AQAP refers to the need to reduce air pollution, protect those who are vulnerable (through depravation and or poor health). If the Council Officers approve this application, they will be guilty of making a decision which does not align with the Council's very new, hot off the press, AQAP.

The AQAP includes numerous commitments and statements which I believe are relevant to this application (extracts in italics below).

"Calderdale Council is committed to reducing the exposure of people in Calderdale Council to poor air quality in order to improve health."

"Our priorities are to improve our understanding of air pollution, promote air quality as a consideration in decision making, raise awareness of the understanding of air pollution in Calderdale, and its links to Climate Change [...] and protect the health of those that are most vulnerable to the harmful effects of pollution (children, the long term sick and the elderly)."

"This report outlines the actions that Calderdale Council will deliver between 2024 and 2029 to reduce concentrations of air pollutants and exposure to air pollution; thereby positively impacting the health and the quality of life of residents and visitors to Calderdale."

"*The most recent figures from Public Health England (2023) show that the directly standardised death rate in under 75s from respiratory disease (Public Health Outcomes Framework indicator (PHOF indicator 93963) was 116.5 per 100,000 in Calderdale, compared to 106.9 per 100,000 in England.*"

"This statistic only considers one type of pollutant, PM2.5, due to the robust scientific evidence linking it to mortality. It does not include NO2, which is the basis for declaring Calderdale's AQMAs, implying that the actual mortality burden could be significantly higher."

Table 3.1 below shows Sowerby Bridge has the highest reported bad/very bad health and worst deprived in two dimensions ratings in Calderdale.

"Calderdale Council are taking action to reduce health inequality and poverty in the borough. Table 3.1 provides a selection of statistics describing the populations living in, and around, Calderdale's AQMAs. These population statistics have been provided so that the Council can best direct resource to reduce health inequalities and build a fairer Calderdale, where all can thrive."

Table 3:1: Population Statistics for Lower Super Output Areas with AQMAs

AQMA	LSOA	Index of Multiple Deprivation Decile (Where 1 is most deprived 10% of LSOAs)[iv]	Not Deprived in Any dimension[v](%)	Deprived in two dimensions [v]	% White: English, Welsh, Scottish, Northern Irish or British [v]	Reported Health (Bad and Very Bad) [v]	Child Population (%) [v]
No. 1 (Salterhebble)	Calderdale 021B	8	61.1	8.7	84.3	2.7	14%
	Calderdale 021C	7	55.6	9.9	**78.3**	3.5	**20%**
	Calderdale 018D	4	**45.6**	12.8	89.0	4.9	16%
	Calderdale 018E	2	**42.0**	**18.4**	87.4	**6.4**	**22%**
No. 2 (Sowerby Bridge)	Calderdale 017A	6	**44.6**	14.3	91.4	5.3	17%
	Calderdale 017D	2	**40.2**	**18.5**	92.6	**9.4**	12%
	Calderdale 017F	3	50.5	12.2	91.1	5.6	15%
No. 3 (Hebden Bridge)	Calderdale 004B	5	48.6	14.9	89.6	**7.4**	16%
	Calderdale 004E	5	52.1	13.1	86.4	**6.2**	14%
	Calderdale 004F	4	54.0	11.2	88.7	5.3	14%
No.6 (Brighouse)	**Calderdale 015A**	4	**41.8**	**15.5**	92.0	**6.4**	14%
	Calderdale 019E	3	**41.4**	**16.6**	90.4	**7.2**	15%
	Calderdale 023C	3	**43.9**	**17.0**	92.4	**6.4**	18%
No. 7 (Hipperholme)	Calderdale 011B	10	61.8	8.0	93.3	2.7	17%
	Calderdale 011C	8	60.2	8.3	92.6	3.1	15%
	Calderdale 011D	6	55.5	11.1	90.7	4.9	15%
No. 8 (New Bank)	**Calderdale 008A**	5	50.0	13.5	92.8	5.2	14%
Calderdale Average	NA	NA	47.1	15.2	83.2	5.8	18%

Note: **Bold** denotes a significant part of the AQMA within the LSOA.

Red denotes higher than Calderdale average deprivation, non-white population, self-reported bad health and child population.

"Policy EN1 Pollution Control

I. The Council will seek to reduce the amount of new development that may reasonably be expected to cause pollution or be exposed to pollution. When determining planning applications, consideration will be given to the following issues:

a. The likelihood of light, noise, smell, vibration or other emissions that pose an unacceptable risk to the amenity of the local area [...]

c. Whether there are reasonable grounds to believe that human health may be affected by the proposal

d. The potential for pollution (including noise, light, water and air pollution) to affect biodiversity and sites of biological and geological importance (...]

g. The potential impact on designated Air Quality Management Areas (AQMAs) or areas at risk of exceeding air quality objectives."

As stated in the recently published Air Quality Report, Sowerby Bridge has never been compliant with Air Quality Objectives since being designated as an AQMA in July 2006.

"The Calderdale Climate Action Plan is a comprehensive strategy developed by Calderdale Council to combat climate change and achieve a net zero carbon emissions target by 2038. The plan outlines the council's commitment to taking climate change seriously, acknowledging its major threat to our way of life."

"As there are "no safe levels" for air pollution, this AQAP provides the necessary details to minimise pollution levels beyond the national AQS, and to bring pollution levels down in as short-time as possible."

"The Calderdale Joints Needs Assessment section on Air Pollution, in 2023, recognised that a "lack of coherent policy and, in some cases, a lack of cooperation embracing all council functions and services" is an issue for the Council, with regard to improving air quality. Efforts are already underway across the council and an Air Quality Operational group has already been set up to make air quality a key consideration in decision making across the council, and to promote joined up thinking, particularly with Public Health and the Climate Action group."

"Calderdale's air Quality Strategy has the aim of clean air for all. It includes six key objectives:

2. To ensure air quality is considered in everything we do.

6. To protect the health of those most vulnerable to the harmful effects of air pollution."

"The air quality strategy group works is guided by the following important principles: (...]

- *We will target air quality action to areas and groups at greatest risk of harm from air pollution*
- *We will use our regulatory and enforcement powers when necessary to improve air quality"*

Respiratory Data - Chronic Obstructive Pulmonary Disease (COPD) and Asthma Prevalence

The analysis in this section together with Table 3.1 in the Air Quality Action Plan section evidences the high health vulnerability of Sowerby Bridge residents and why approving this application would be detrimental to the health and wellbeing of the community and would be irresponsible and negligent.

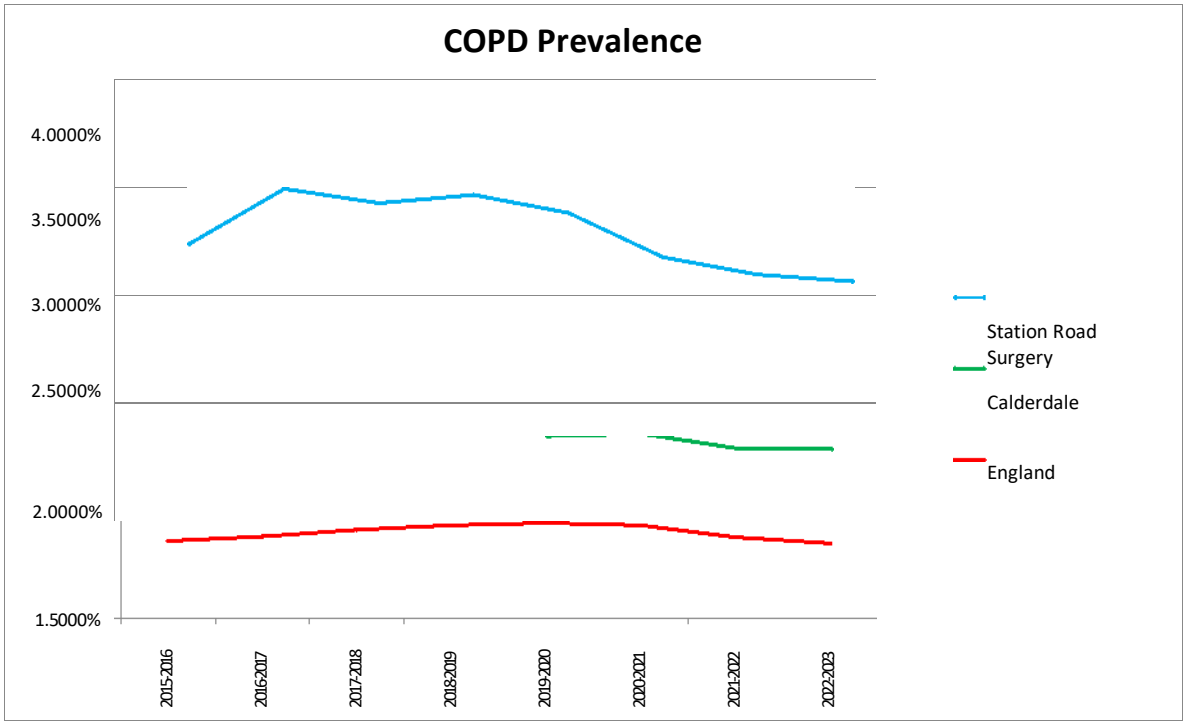
The analysis below illustrates the prevalence of respiratory diagnoses in Sowerby Bridge compared to the local area (Calderdale) and to nationally (England).

The data was sourced from, and is as obtained from, NHS Digital and NHS England, with no adjustments made to the data shown. The data is referred to as Quality and outcomes framework achievement - prevalence data. Data was not available for the level of Calderdale prior to 2019-2020.

The data is based on the Station Road Surgery, Sowerby Bridge to represent the local community of Sowerby Bridge.

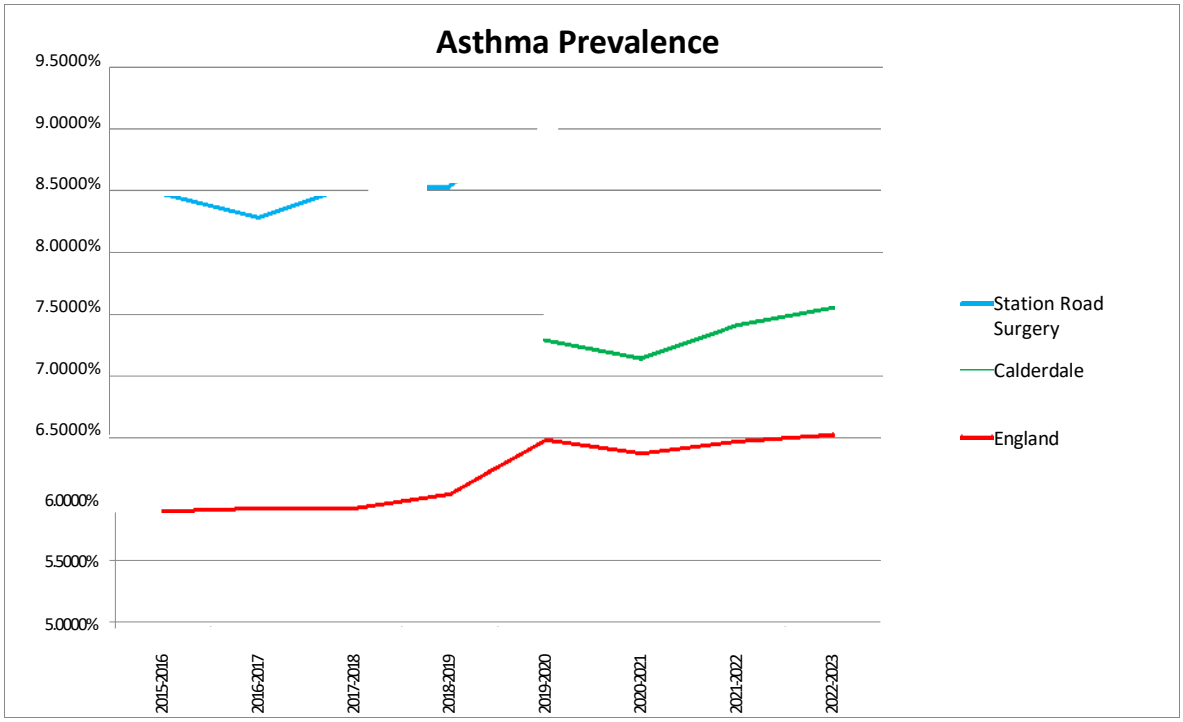
Respiratory Data - COPD (Chronic obstructive pulmonary disease)

Data Date	Station Road Surgery			% increase	Calderdale			% increase	England		
	Number	List Size	Prevalence %	over England	Number	List Size	Prevalence %	over England	Number	List Size	Prevalence %
2015-2016	334	10,454	3.1949%	72.4074%					1,066,471	57,549,410	1.8531%
2016-2017	323	9,371	3.4468%	83.8529%					1,087,908	58,029,147	1.8748%
2017-2018	296	8,759	3.3794%	77.2016%					1,113,417	58,383,266	1.9071%
2018-2019	297	8,692	3.4169%	77.3528%					1,144,151	59,386,096	1.9266%
2019-2020	334	10,013	3.3357%	72.1064%	5,102	222,153	2.2966%	18.4958%	1,170,786	60,407,685	1.9381%
2020-2021	319	10,183	3.1327%	62.5069%	5,125	222,035	2.3082%	19.7373%	1,170,437	60,716,244	1.9277%
2021-2022	311	10,188	3.0526%	63.1924%	4,992	222,570	2.2429%	19.9048%	1,152,272	61,600,389	1.8706%
2022-2023	307	10,168	3.0193%	63.5613%	5,004	223,543	2.2385%	21.2646%	1,151,474	62,378,057	1.8460%



Respiratory Data - Asthma

Data Date	Station Road Surgery			% increase	Calderdale			% increase	England		
	Number	List Size	Prevalence %	over England	Number	List Size	Prevalence %	over England	Number	List Size	Prevalence %
2015-2016	879	10,454	8.4083%	42.2924%					3,400,679	57,549,410	5.9091%
2016-2017	771	9,371	8.2275%	38.6194%					3,444,218	58,029,147	5.9353%
2017-2018	743	8,759	8.4827%	42.9744%					3,463,893	58,383,266	5.9330%
2018-2019	741	8,692	8.5251%	40.9680%					3,591,392	59,386,096	6.0475%
2019-2020	904	10,013	9.0283%	39.2634%	16,193	222,153	7.2891%	12.4367%	3,916,150	60,407,685	6.4829%
2020-2021	831	9,559	8.6934%	36.3664%	14,870	208,188	7.1426%	12.0403%	3,629,071	56,926,476	6.3750%
2021-2022	841	9,561	8.7962%	35.9099%	15,478	208,959	7.4072%	14.4491%	3,745,077	57,865,447	6.4720%
2022-2023	840	9,557	8.7894%	34.7993%	15,869	210,377	7.5431%	15.6861%	3,826,470	58,685,133	6.5203%



Bureau Veritas (BV) Human Health Risk Assessment Peer Review (HHRA)

The following is based on data and information sourced from the Bureau Veritas (BV) Human Health Risk Assessment Peer Review (extracts from the report are in italics).

BV have not given their reassurance that the incinerator would not detrimentally impact the health and wellbeing of the community and will not add to the already high air pollution. Below are extracts from the BV HHRA which I find concerning.

3.2 Legislative and Policy Context states "*There is no reference to any UK based Health Impact Assessment (HIA) guidance (e.g., Public Health England's, 'Health Impact Assessment in Spatial Planning a guide for local authority public health and planning teams'1). It is acknowledged that the HHRA is a specific study on the potential imbibement of toxic chemicals released and has followed an appropriate methodology for assessing this where a wider HIA may consider broader socio-economic health indicators which may be affected by a development.*"

3.3 Baseline Conditions includes "*Swimming and fishing have been screened out as likely to not be significantly affected. While this is accepted it would be beneficial to include a review of potentially affected receptors to screen these out. For example it may have been worth consideration of popular wild swimming spots (a map of popular spots can be found on www.wildswimming.co.uk). It is noted that popular wild swimming spot 'Gaddings Dam' is around 10 km from the site. Based on the distance it is considered that this can be screened out but would have been helpful to include these considerations within the assessment.*"

Halifax Canoe Club is located in the centre of Sowerby Bridge, the club regularly holds organised events on their white water course which is situated immediately downstream from where the River Ryburn and River Calder merge, they also use the river both upstream and downstream of the white water course for paddling exercises and training. The Club's organised events at these locations are well attended and include: Club Wednesday (a weekly evening event), Club Sunday (a monthly event) and regular Tuesday Slalom sessions for Slalom training. Even on a cold dark Wednesday evening in October there were 4 members of the club braving the cold. The monthly Club Sunday events are very popular given they are held during the day and are open to all skill levels including beginners.

The following photographs were taken of a Club Wednesday event on a cold dark Wednesday evening last month.

The photo above shows club members in the water where the River Calder and River Ryburn merge.

The photograph above shows the club members using the white water course.

The impact on members of the club using the river, circa 0.5 mile downstream from the CVSH site, on a regular / weekly basis for recreation has not been included in the HHRA or in BV's review of the HHRA, I believe this to be a significant oversight which needs to be corrected. Personally, I cannot think of a higher risk of coming into direct contact with polluted water, should pollutants from the incinerator find their way (by whatever means) into the River Ryburn and subsequently into the River Calder, than by weekly paddling and capsizing a canoe or kayak on the river in the vicinity of the white water course which, I repeat, is only circa half a mile downstream from the CVSH site. Rolling / capsizing the kayaks is something participants enjoy doing and which is regularly practice on the river.

3.4 Assessment Methodology states "*The assessment has assumed a lifetime of individual of 70 years. Average UK life expectancy is closer to 80 years (depending on gender) according to the Office of National Statistics2. It would be beneficial to understand the source and justification for using a 70 year lifespan and how this may affect the findings."*

Whilst the Applicant has stated "*The 70 year lifespan is not actually used for assessing intake but only used for assessing lifetime carcinogenic risk and is not used for this assessment"* given the existing high poor respiratory health statistics for Sowerby Bridge (detailed earlier in this objection) it would be appropriate to model the impact of increased air pollution on the most vulnerable members of the community, including those; over 70, over 80, with reported COPD and asthma, etc.

3.4 Assessment Methodology also states "*The assessment has used IRAP modelling software which is designed to meet the US EPA HHRA assessment methodology. The method for inputting information involves using the air dispersion modelling from ADMS software outputs and adapting these to input into the IRAP software. There is a specific plugin for IRAP called 'Air 2 Risk' which adapts ADMS files for use in IRAP. It is not apparent that this has been used but the methodology for adapting the ADMS outputs appears to be align with appropriate processes but has been calculated manually rather than using the plugin."*

Whilst the BV review of the HHRA report states the methodology appears to be aligned, it would be interesting to know whether BV have reviewed and ratified the manual calculation and the data that was subsequently input manually into the IRAP software referred to above. My concern is manual calculations and manual data inputs are prone to human input mistakes. This is evidenced by such mistakes in other documentation relating to this Environmental Permit Application, which included (but is not limited to) the incorrect postcode and inaccurate site levels, these errors made the application appear to be more favourable. The incorrect postcode showed the site was not subject to flooding whereas the correct postcode showed that it was suspectable to surface water flooding and the incorrect levels survey originally provided showed the floor level of the site to be 9 metres higher than it actually is, resulting in emissions from the stack appearing to be higher in the surrounding area by 9 metres.

3.4 Assessment Methodology also states *"UK children have been assumed to be 5 kg heavier than the default value for HHRAP. This is based on a 'typical' approach but is not supported by any evidence of typical weights of children or further justification. Assuming a higher weight does not represent a worse case approach given the intake dose is divided by weight so a higher weight would be associated with a greater distribution of a toxic compound, so a lower dose per kg."*

Whilst the applicant has provided details as to the source of the higher weight it would be interesting to compare HHRA results using the HHRAP default UK children weight of 5kg lighter than that used in the submitted HHRA as part of this application.

Recent BBC Articles

1) Burning Rubbish Now UK's Dirtiest Form of Power published 15 October

2024 source https://www.bbc.co.uk/news/articles/cp3wxgje5pwo

The article refers to incineration as: a disaster for the climate, producing the same amount of greenhouse gases as coal power.

Extracts from the BBC article are included below in italics

Burning household rubbish in giant incinerators to make electricity is now the dirtiest way the UK generates power, BBC analysis has found

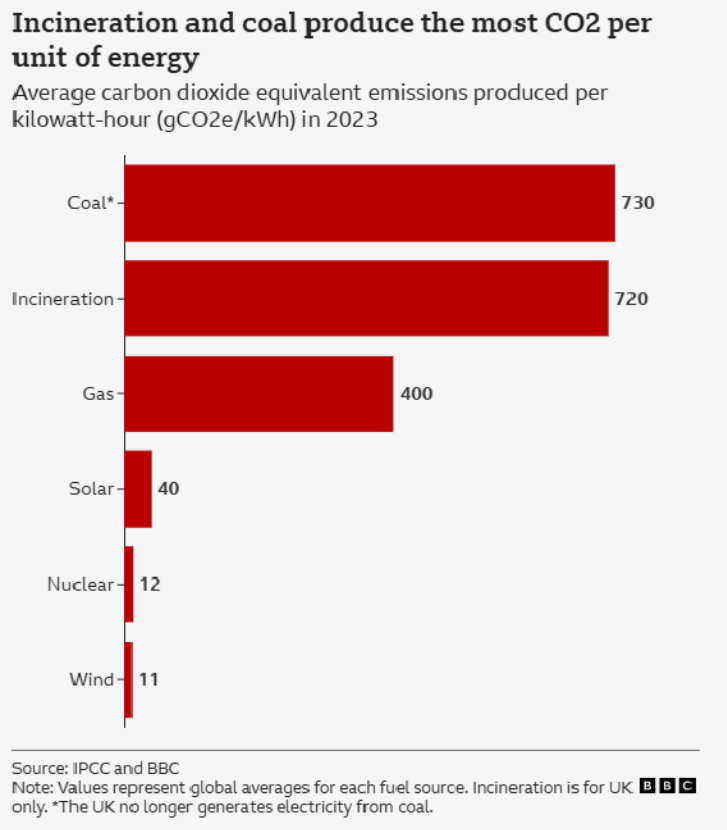
Nearly half of the rubbish produced in UK homes, including increasing amounts of plastic, is now being incinerated. Scientists warn it is a "disaster for the climate" - and some are calling for a ban on new incinerators.

The BBC examined five years of data from across the country, and found that burning waste produces the same amount of greenhouse gases for each unit of energy as coal power, which was abandoned by the UK last month.

Nearly 15 years ago, the government became seriously concerned with the gases being produced from throwing away household rubbish in landfill and their contribution to climate change. In response, it hiked the taxes UK councils paid for burying waste.

In the past few years, more plastic has been going to incinerators and less food waste - which councils are now sending to anaerobic digesters or to be composted. But the government's own calculations continue to assume that we send the same mix of rubbish as we did back in 2017 - potentially underestimating the scale of the issue.

The BBC's five-year analysis used data on actual pollution levels recorded by operators at their incinerators, and found that energy-from-waste plants are now producing the same amount of greenhouse gases per unit of electricity as if they were burning coal.



For the past three decades, the UK has been reducing its use of coal because of how polluting it is - and last month closed its last coal plant. The government hopes this will help it achieve its target of ensuring electricity generation produces no carbon emissions by 2030.

This now leaves waste incineration as the dirtiest way the UK produces power. According to the BBC analysis, energy produced from waste is five times more polluting than the average UK unit of electricity.

The government's independent advisory group, the UK Climate Change Committee, warns that incineration will make up an increasing part of emissions from electricity generation.

It's an "insane situation", said XXXXX. "The current practice of the burning of waste for energy and building more and more incinerators for this purpose is at odds with our desire to reduce greenhouse gas emissions," and "Increasing its use is disastrous for our climate."

The waste they are burning is increasingly made up of plastic, according to local government data. Because plastic is produced from fossil fuels, it is the dirtiest type of waste to burn.

According to the government's own statistics, burning plastic produces 175 times more carbon dioxide (CO2) than burying it in landfill.

2) Air Pollution Death Settlement published 31 October 2024

Source https://www.bbc.co.uk/news/articles/c5yx6leg4nqo

Extracts from this article are included in italics below

A sad but relevant article about XXXXX, who became the first person in the UK to have air pollution recognised as a factor in her death. XXXXX died following an asthma attack in 2013, an inquest later finding air pollution "made a material contribution" to her death.

XXXXX sued the Department for Environment Food & Rural Affairs (Defra), the Department for Transport and the Department for Health and Social Care, for compensation over XXXXX "illness and premature death".

The government settled the action for an undisclosed sum.

XXXXX, who lived 25 metres (82ft) from the South Circular Road in Lewisham, south-east London, suffered an asthma attack after being exposed to excessive air pollution, coroner XXXXX concluded.

In a narrative verdict, he said the levels of nitrogen dioxide (NO2) near XXXXX home had exceeded World Health Organization and European Union guidelines.

A statement issued on behalf of Defra, the Department for Transport and the Department for Health and Social Care said: "Young children like XXXXX should not have to suffer because of our air."

It said the government was "truly sorry for your loss" and expressed "our thoughts and deepest condolences" to XXXXX.

The statement added: "We are committed to delivering a comprehensive and ambitious Clean Air Strategy including a series of interventions to reduce emissions so that everyone's exposure to air pollution is reduced."

Whilst the *XXXXX* extracts below reference Government I assume the references to Government could be interchangeable with Local Authority depending on where the failures and or responsibilities lie.

XXXXX, which brought the civil claim for XXXXX estate, told BBC London the settlement "doesn't set a court precedent", but "demonstrates that with the right evidence, governments can be held to account for their failures in relation to air pollution" and

"I can definitely imagine similar claims being made should the government fail to take action to protect our environment if that then impacts upon human health and life," and "We know that air pollution has a significant impact on our life... and the government has a clear responsibility for improving air quality in the UK."

Conclusion

Inspector Mr John Woolcock's earlier decision in respect of this application concluded that he was "unable to find that granting an environmental permit for the SWIP would not have an unacceptable adverse effect on human health and the environment". Having reviewed the most recently published application related documents, the recently published Calderdale Air Quality Report, the new Air Quality Action Plan 2024-2029 (which has recently been approved by Defra, but has not yet been published on the Council's website) and the recently released NHS Health data I believe Inspector Mr John Woolcock's conclusion is still valid and can find no evidence to the contrary.

If the Officers decide to approve this application, they will be failing to protect the health and wellbeing of the community and the environment.

They will also be guilty of making a decision which does not align with the Council's very new, hot off the press, recently Defra approved Air Quality Action Plan 2024 - 2029.

If Officers approve this application they will once again be demonstrating their biasedness in favour of this application, possibly driven by financial reasons be that: wanting to avoid the possibility of additional legal costs implied in the applicant's response to BV's HHRA review, or the prospect of potentially cheaper disposal of the district's waste at the applicant's operation come 2026 when Calderdale Council's current contract extension with Suez ends and the Council takes back control of the district's waste management. Or is it in some way linked to the collapse of the Council's Joint Venture with Bradford Council to operate a local incinerator which would have allowed them to incinerate the district's waste locally. Or maybe it is simply a strong dislike for the community of

Sowerby Bridge which is demonstrated by a very strange and contentious comment in the Council's Local Plan which refers to "*Sowerby Bridge jealously regards itself as a separate place"*, this bizarre comment suggests animosity on the part of the author/owners of the Local Plan.

On the Council's Environmental Application webpage (https://new.calderdale.gov.uk/business-services/licences/other/environmental-permits/current-recent-applications/calder-valley-skip-hire) under the heading Third Consultation, the Council Officers state "*CVSH have now provided us with enough information for a decision to be made*" as shown below. This implies the Council believe they have everything they need to make a decision, which seems extremely odd and rather final given the third consultation period for public comments has not yet ended. This demonstrates that the Council Officers have already made their decision and that they are assuming that comments from the current public consultation exercise will not be worthy of consideration or form part of their decision. This is the latest example of Council Officer's biasedness in favour of this application which has been evident from the very first application 9 years ago.

Third consultation

A response to the second 'Request for Further Information Notice' has been received from CVSH.

Bureau Veritas have:

- Completed the review of the 'Human Health Risk Assessment (February 2022)'.
- Highlighted some aspects that need to be clarified. Once this is received there will be a further consultation for 21 days.

CVSH have now provided us with enough information for a decision to be made. Please see Supporting documents.