

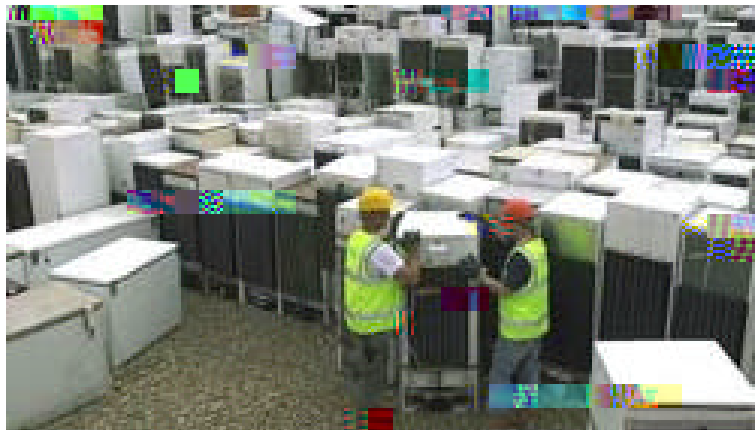


Disposal of Fridges and Freezers

01 April 2003

Report to the City Council

Disposal of Fridges and Freezers



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Disposal of Fridges and Freezers

Contents

Contents	2
Preface	3
1: Executive Summary	4
2: Summary of Recommendations	5
3: Introduction	6
3.1 Reason For Review	6
3.2 Terms Of Reference	6
3.3 Methodology	6
4: Background	8
4.1 Recent Changes to Legislation and the Economy	8
4.2 Collection of Fridges and Freezers	9
4.3 Disposal Arrangements	10
5: The Current Situation	11
5.1 Bulky Waste Collections	11
5.2 Numbers of Fridges for Disposal	12
5.3 The Cost of Disposal	13
6: Conclusions and Recommendations	15
6.1 Future Changes in Legislation	15
6.2 Bulky Waste Collections	16
6.3 Changes to the Disposal Process	17
6.4 Progress on Implementation	18
Appendix 1: Fridge and Freezer Disposals	19



Report to the City Council



Report to the City Council





Disposal of Fridges and Freezers

- 3.3.4 The process was observed first hand, with a visit to Tyseley Public Waste Disposal site, Ladywood Furniture Project and EMR's new disposal facility at Darlaston.



Disposal of Fridges and Freezers

4: Background

4.1 Recent Changes to Legislation and the Economy

- 4.1.1 The EC regulation 2037 (29 June 2000) specified changes to the process of manufacture, repair and disposal of fridges and freezers. These relate to the treatment of Ozone Depleting Substances (ODS - such as chlorofluorocarbons (CFCs)) contained within each unit.
- 4.1.2 ODS are used in fridges and freezers in two ways:
- The foam used to insulate the cabinet (80% of the CFCs)
 - The liquid refrigerant used to cool the fridge / freezers. This also contaminates the oil used to lubricate the circulatory system (20% of CFCs in the unit)
- 4.1.3 The regulation essentially requires that the Council (as the Waste Disposal Authority) takes certain precautions to ensure that ODS are removed (and not released into the atmosphere) from refrigeration equipment, during disposal.
- 4.1.4 Regulation 2037 also prohibits export of ODS outside the EC. This has had a considerable impact on the way we process the units. Before the new legislation it was far easier for waste disposal operators to dispose of old fridges and freezers, either by
- Crushing them completely (allowing uncontrolled CFC release), or
 - Exporting them to Third World countries, particularly Africa
- 4.1.5 Major electrical goods retailers (such as Comet and Curry's) used to voluntarily operate 'take-back' schemes. Essentially, this meant that 45m een coch as Co wouparsche a thef fridges e



Report to the City Council





Disposal of Fridges and Freezers

- 4.2.8 It is at this point that the two collection flows are brought together. LFP collect from the five PWD sites. Bulky Waste Collections also deliver fridges and freezers to LFP.
- 4.2.9 The main cost within this process is transportation. Whilst fridges and freezers are not heavy, they are large, bulky items. They must also be handled carefully and stored to prevent any damage (and potential release of CFCs).
- 4.2.10 The main purpose of LFP is to ensure that the numbers of units transported to EMR are of sufficient volume to make this process economical. Rather than transport each bulky waste collection to the disposal point, they are stored to reduce the amount of transport time.
- 4.2.11 As an additional (largely social) benefit, LFP removes potentially re-usable units from the waste. Such units are refurbished and sold at nominal cost to those in need. However, at present, less than 1% of units collected can be re-used in this way.

4.3 Disposal Arrangements

- 4.3.1 Fridges are delivered by LFP to EMR for disposal under a contract with Tyseley Waste Disposal. At present the units are stored by EMR pending disposal at their site in Darlaston, Walsall.
- 4.3.2 Disposal is currently carried out by EMR at their disposal plant in
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Disposal of Fridges and Freezers

	Collected	Outstanding	Total Requests	Completed in 10 Days	% Collected	% in 10 Days
2001/2						
Total	4,409	10	4,419	1,984	99.77%	44.90%
Average per Month	367.42	0.83	368.25	165.33		
2002/3						
April	1,858	21	1,879	1,113	98.88%	59.23%
May	1,701	68	1,769	824	96.16%	46.58%
June	879	707	1,586	494	55.42%	31.15%
July	1,505	869	2,374	254	63.40%	10.70%
August	2,041	616	2,657	792	76.82%	29.81%
September	1,800	539	2,339	937	76.96%	40.06%
October	2,165	56	2,221	908	97.48%	40.88%
November	1,925	112	2,037	1,102	94.50%	54.10%
December	1,101	354	1,455	545	75.67%	37.46%
Total	14,975	3,342	18,317	6,969		
Average per Month	1,663.89	371.33	2,035.2	774.33	81.70%	38.89%
			2			

*Note: This figure is for **all** bulky waste collections. It therefore includes items other than fridges and freezers.*

Fig. 1: Bulky Waste Collections 2002/3

Source: Environmental and Consumer Services

5.2 Numbers of Fridges for Disposal

5.2.1 The number of fridges collected for disposal from April to October 2002 is shown in Appendix 1, Fig. 3. This shows that

Fridges and freezers for disposal have more than doubled in the last 20 months

After the implementation of Regulation 2037 and the



Disposal of Fridges and Freezers

- 5.2.3 The only way that this figure is likely to decrease is if someone else accepts responsibility for disposal of units. The most likely source of this is for the retailers to re-commence the take-back schemes, as an incentive to customers when purchasing a new unit.

5.3 The Cost of Disposal

- 5.3.1 To give an element of perspective, Birmingham City Council disposes of around 550,000 tonnes of domestic waste per annum. Of this, fridges and freezers comprise around 1,000 tonnes





Disposal of Fridges and Freezers

6: Conclusions and Recommendations

6.1 Future Changes in Legislation

6.1.16:



Disposal of Fridges and Freezers

Recommendation	Responsibility	Completion Date
<p>R1 The Council should maintain close links with DEFRA and take an active part in the forthcoming consultation process on the WEEE Directive.</p> <p>This should be towards an overall aim of producing and implementing a response plan to the Directive, once its precise impact is known.</p> <p>This action plan should result in implementation of these measures by the time that the legislation comes into force.</p>	<p>Director of Environmental and Consumer Services</p>	<p>Continuous throughout the transposition of the Directive into UK Law</p>



Disposal of Fridges and Freezers

6. *Promoting the free bulky waste collection service further is likely to put increased strain on resources that already appear to be stretched too far.*
7. *The specific impact of the free bulky waste collection service on reducing the incidence of dumping is not currently measurable.*

	Recommendation	Responsibility	Completion Date
R2	<p>The resourcing of the bulky waste collection service should be reviewed and the workload calculated on the basis of a practical number of collections.</p> <p>This should be reviewed in the course of determining the requirements of providing localised waste collection services.</p>	<p>Director of Environmental and Consumer Services</p>	

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Disposal of Fridges and Freezers



Disposal of Fridges and Freezers

	Total Units	LFP Costs	EMR Costs	Total Month Cost
2001/2 April	683	£2,732		£2,732
May	721	£2,884		£2,884
June	903	£3,612		£3,612
July	751	£3,004		£3,004
August	832	£3,328		£3,328
September	580	£2,320		£2,320
October	950	£3,800		£3,800
November	913	£3,652		£3,652
To 16 December	524	£2,096		£2,096
From 17 December	734	£3,625	£14,937	£18,562
January	2,077	£10,258	£42,267	£52,525
February	2,499	£12,343	£50,855	£63,197
March	2,519	£12,441	£51,262	£63,703
Total 2001/2	14,686	£66,095	£159,320	£225,416
2002/3 April	2,952	£14,580	£60,073	£74,653
May	2,823	£13,943	£57,448	£71,391
June	2,430	£12,002	£49,451	£61,452
July	3,039	£15,010	£61,844	£76,853
August	4,316	£21,317	£87,831	£109,147
September	4,193	£20,709	£85,328	£106,037
October	2,277	£11,246	£46,337	£57,583
Projected:				
2002/3 November	2,300	£11,360	£46,805	£58,165
December	2,300	£11,360	£46,805	£58,165
January	3,147	£10,385	£41,540	£51,926
February	3,147	£10,385	£41,540	£51,926
March	3,147	£10,385	£41,540	£51,926
Forecast End of Year Position 2002/3	36,071	£162,681	£666,542	£829,223
Monthly Average	3,006	£13,557	£55,545	£69,102

Fig. 4: Costs of Disposal, 2001-3

Source: Environmental and Consumer Services

The information in Fig. 4 and 5 is based upon the audited numbers of disposals for which the Council is invoiced by Tyseley Waste Disposal / EMR and LFP.