

Friends of the City or Enemies of the Earth? Crisis and conflict in British municipal waste management from the 1950s to the 1990s

Ray Stokes and Stephen Sambrook

Presented at the Annual meeting of the European Business History Association, Athens, 25 August 2011. Presentation copy: Please do not cite without permission of authors.

The management of domestic refuse in twentieth century cities has been a sustained problem whose satisfactory solution has taxed practitioners, particularly in the second half of the century when the amounts, complexity and conceptualisation of household wastes changed substantially. In Britain, municipal waste management was rooted in an ethos of public health concern and originally seen as a public service which was properly the function of municipal bodies. Even if cities now often devolve the work of refuse management to the private sector, they remain ultimately responsible for satisfactory delivery of waste management services to local taxpayers. They are, in effect, the waste managers of last resort. Because of the administrative structures in which they have been embedded, the organisation and implementation of municipal refuse management operations have regularly been subject to political, economic, structural and technological pressures which have sometimes combined to create crisis conditions. Collecting house refuse has always presented a significant and perennial—although ultimately solvable—logistical problem. Disposal, on the other hand, has continually been an even more complex issue that became ever more problematical as environmental awareness grew in the 1980s and 1990s. Familiar and apparently safe, cost-effective operating practices such as incineration and burial of refuse were increasingly questioned in the century's last quarter; their continuation challenged by both political and public pressure, leading to a major re-evaluation of thinking by waste management practitioners.

Scholarship on the management of domestic refuse has been relatively sparse, although recent work by cultural, environmental and geographical historians on the generation and management of waste has been welcome and informative. Much of this literature has tended to see municipal refuse handling in an unfavourable light, and writing has often focused on the adverse social and environmental aspects of

waste creation.¹ Coverage of waste disposal emphasises apparent shortcomings in methodologies and the motivations for their deployment.² This treatment tends to suggest that disposal practices were often employed with little regard for their social and environmental consequences, and twentieth century municipal waste management in Britain is depicted as having favoured—or at least not opposed, and certainly complicit in—the indiscriminate dumping and burning of refuse and also of disregarding the potential value of domestic rubbish for recovery, re-use and recycling. Changes undertaken since the 1980s in particular to ameliorate these shortcomings in prevailing practice are ascribed to growing environmental awareness, often driven by activists lobbying for the legislative measures which have been instrumental in leading to a shift in practice. The practitioners are viewed in this narrative as a major source of the problem, almost as ‘enemies of the earth’ with any solutions taken in spite, rather than because of them.

Seen solely from the perspective of environmental, cultural and geographical writers, this understanding seems to have much validity. However, the scholarship tends to overlook the underlying reasons why cities adopted and implemented particular waste management regimes. Looking at refuse collection and disposal as business structures operating in the context of large-scale city management operations opens up an additional, and beneficial, means to understanding more fully how environmental factors in particular were understood and managed in the second half of the twentieth century in British cities. Close examination of municipal refuse management in three such municipalities between 1950 and the 1990s demonstrates less a picture of careless disregard by practitioners than one of a series, or even a continuum of usually studied responses to the constant need to manage a ceaseless and increasingly complex domestic waste stream. Logistical, financial and political factors regularly impinged on their planning and implementation, as well as conflicts of interest within local authority structures, sometimes individually, sometimes in conjunction. Far from being indiscriminate dumpers and burners of domestic detritus, practitioners might better be seen as firstly ‘friends of the city’ who saw (and still see) their prime responsibility as collecting and disposing of domestic wastes. They were, and are, not only technically, but also environmentally and socially aware professionals whose

¹ For instance, Strasser 1999, Scanlan 2005, Gille 2007, Riley 2008, Gille 2010.

² For instance, Melosi 1998, Clark 2007, Cooper 2007 and 2010.

inclinations to improve city waste management were governed, and frequently frustrated, by combinations of circumstances which were outside their own control and which have led later commentators to see them as, perhaps unwitting, ‘enemies of the earth’.

Municipal waste management in 1950 was firmly rooted in an ethos of providing a service to maintain and improve the health of the public by removing insanitary and thus potentially harmful house wastes. Public cleansing services were first regularly provided under the 1875 Public Health Act which empowered local authorities to organise them and recover costs through local property taxes. By the start of the twentieth century this had become virtually a municipal monopoly. One result of this public sector structure was that practitioners were readily able to form themselves into what amounted to a professional corps which collectively acquired a substantial body of technical expertise. In turn, this body benefitted from other branches of municipalities’ specialist cohorts so that scientific and medical advice was readily available within municipal structures.³ Even before World War II, refuse management departments were amongst the largest in many British cities, with workforces numbering up to two thousand and budgets in the top five. Glasgow’s department employed around 2,500, Birmingham slightly fewer, and Manchester around 1,500.⁴ The strains of war did little to change this and, once the transition back to peacetime operations had been made, municipal cleansing departments generally resumed the working practices they had followed before 1939.

Practitioners were well aware by 1950 that changes in the delivery of municipal waste services were likely to become pressing as time passed.⁵ Elements of crisis and conflict became apparent in the early 1950s when labour recruitment and retention problems became serious enough to threaten the provision of regular collections from

³ Lewis Herbert, *The History of the Institute of Wastes Management 1898-1988: Celebrating 100 years of Progress* (IWM Business Services, Northampton, 1998). Chapters 2 and 3 provide background to the early evolution of the profession.

⁴ Figures extracted from archived Annual Reports of the relevant department for each city. For Glasgow: Mitchell Library Glasgow, Records of the City of Glasgow, Cleansing Department Annual Reports, collection reference DTC (subsequently DTC), DTC 7/3/1. For Manchester: Manchester City Archives, subsequently MCA, collection reference M595. For Birmingham: Records of the Salvage Committee, collection reference BCC/BP.

⁵ See John H Lewis, ‘Public Cleansing from a Chairmans’ Point of View’ in *Public Cleansing and Salvage* August 1950, pp. 389- 402.

domestic properties. At that time, emptying refuse containers – ‘dustbins’ – into collection vehicles was an un-mechanised, labour intensive operation involving as many as four workers and a driver per vehicle.⁶ The work was heavy – dustbins could weigh as much as 25 kilos and had to be lifted to shoulder height to be emptied into the lorry – as well as often unpleasant thanks to putrefying waste food in the contents. Recruitment in the relatively full employment conditions of the mid-1950s became a problem, particularly as pay rates were low and other less uncongenial work was plentiful. Retention of workers was even harder, and annual labour turnover rates were rarely below 80 percent and at times even over 100 percent.⁷ Birmingham, Glasgow and Manchester all suffered badly, especially Glasgow where the goal of providing at least twice weekly collections for tenemented apartment dwellers was constantly frustrated by labour shortages.⁸ The heads of public cleansing services were fettered by nationally negotiated pay scales which prevented them from offering locally higher wages to induce recruiting, nor could they provide better working conditions because the elected councillors who ultimately determined budgets were often unwilling to add significantly to expenditure. These persistent problems, which regularly boiled over into full-fledged crisis, were eased but never wholly eradicated by the gradual introduction of mechanised collection methods in the late 1960s which both reduced the need for labour and made the work less unpleasant.

Overcoming labour problems was by no means the only, or even the main, reason for the spread of mechanised collection, which became virtually universal by the late 1980s. A second form of crisis state began emerge in the early 1960s. This resulted from changes in the nature of the refuse stream which began to become noticeable to practitioners from the late 1950s. House waste became less dense but increased in volume to such an extent that existing collection regimes became progressively inappropriate to handle it. One factor here was the passage of the Clean Air Act in 1956, which progressively banned the burning of smoke-generating fuels. The consequent switch away from domestic solid fuel to oil or gas-fired central heating meant fewer open fires were in use. This reduced the amount of dense ash and clinker which had made up the majority of bin contents. Now, much of what had previously

⁶ See MCA, M595, Annual Report 1960-61 for illustrations of collection teams at work.

⁷ Extracted from Annual Reports for Birmingham, Glasgow and Manchester. See Footnote 4 above.

⁸ MLG, DTC 7/3/1 (5) Annual Report 1952, p. 3.

been burnt went straight into refuse containers which consequently became fuller much more quickly and increased the need for prompt collection rounds to avoid overflowing bins. This bulkier refuse also filled up collection vehicles more rapidly, causing delays to collection rounds while refuse trucks were driven back to their depots to be emptied. By the mid-60s, city cleansing managers were liaising with collection-vehicle makers in the design of more sophisticated types which employed two strategies to minimize collection problems.⁹ Compaction systems crushed the waste, so reducing its volume, and mechanical devices to lift and empty the bins into the vehicle reduced both time and fatigue levels for collection operatives. Although the means to solve the refuse-volume collection problem was readily available via vehicle technology, for practitioners there was still the problem of conflict with their political masters over the increased budgets necessary. The public cleansing manager at Birmingham, Britain's largest municipal waste authority, complained repeatedly, though unsuccessfully, about inadequate vehicle funding which impeded efforts to increase collection efficiency.¹⁰

Even if collecting refuse was often a problematic task, cities were generally good at getting it done adequately. Annual reports¹¹ indicate how major cities coped. Glasgow substantially overcame the time-consuming difficulties of servicing the large numbers of council-owned tenemented properties by altering dustbin storage and access arrangements. Birmingham sidestepped the problems caused by the initial failure of mechanised loading by replacing dustbins with storage sacks which could simply be thrown into collection vehicles, speeding up the handling process considerably. Manchester adopted different sizes of vehicle suited to the narrow roadways between the characteristic long rows of small terraced properties that still made up a large proportion of the city's housing stock.

Collection work was the principal focus of concern for practitioners and local politicians alike through to the late 1960s. But after then the question of refuse disposal began to assume greater weight, first with practitioners and later with a far wider congregation of concerned parties. Disposal was to prove a far less tractable

⁹ For a summary of progress in their design, see G E Brown, 'Development of Refuse Collection Vehicles and Thoughts on Future [sic]' in *Public Cleansing*, October 1968, pp 533-541.

¹⁰ BCC/BP, Report of General Manager, 17 December 1969, Section 3, Vehicle Replacement Policy.

¹¹ See footnote 4 above.

problem which began increasingly to exercise not just practitioners but local and national politicians, well before the emergence of a clearly defined movement aimed at protecting the natural environment. The problems of periodic, short-term crises in collection operations became overshadowed by the threat of a sustained state of crisis in domestic disposal.

There were several reasons for the emergence of this crisis in municipal waste disposal. Firstly, the volume of domestic rubbish was continuing to grow. Practitioners had neither the remit nor the authority to direct households to curtail their refuse generation and were aware that disposal procedures had to be able to keep up with the growing amounts of refuse being collected. Secondly, a potentially more serious problem lay in changes in the composition of the domestic waste stream which began in the late 1950s and which a decade later were starting to threaten established methods of disposal. The burgeoning consumer society in Britain was not only constantly discarding more waste food, packaging and household artefacts, it was throwing away materials which scarcely ten years earlier were largely unknown in everyday life. In particular, plastics in a variety of guises were becoming commonplace for packaging and for manufactured goods alike. By the mid-1970s they were largely replacing paper for wrapping and were starting to replace both metal cans and glass bottles in some applications. These new wastes were inherently unsuited to the usual methods of disposal used by cities which, with some justification, had so far considered themselves satisfactorily competent at making rubbish vanish.

The two universal methods of making refuse disappear were by burning (incineration) and burial (landfilling), often used in combination. More 'progressive' cities first extracted potentially saleable constituents from domestic rubbish before proceeding to dispose of it. Despite the impression given in some recent literature that 'salvage activities' – the recovery of recyclables from house wastes – vanished relatively quickly with the end of the Second World War, major cities like Birmingham, Glasgow and Manchester continued to recover materials from refuse long after the war-time requirements to do so had been rescinded. Birmingham and Manchester ran processing plants where food waste was turned into either animal feed or fertiliser. All three extracted metals from the waste stream for subsequent sale as scrap, as well as

collecting often substantial amounts of waste paper which were also sold.¹² These three cities derived useful revenue from such activities which reduced operating costs as part of an integrated refuse management structure.¹³ Once this extraction phase was done, the residual waste was either burned to reduce its bulk prior to burial, or sent direct to landfill without further action.

Both incineration and landfilling later came to be regarded as inherently disadvantageous to the environment, but from the perspective of cleansing managers through to the early 1980s, both were eminently practical and satisfactory operations which were also economically sound. Filling otherwise un-useable holes in the ground with municipal refuse had been seen for almost a century as a desirable process which simultaneously made rubbish vanish whilst recovering land which could subsequently be put to some practical purpose.¹⁴ From the 1920s, the process had become more sophisticated with the introduction of what was known as sanitary landfill, where layers of waste and soil (or other inert material) were interleaved in a method intended to promote quicker decomposition which would avoid the generation of odours and breeding of vermin that often occurred when refuse was tipped and left uncovered.¹⁵ This procedure was recommended by the Ministry of Health in the 1920s and was adopted by many large cities, including Birmingham, Glasgow and Manchester. When landfilling was operated in conjunction with the incineration of waste from which recyclables had been extracted, there appeared to be an ideal combination of waste disposal methodologies, subject – of course – to the availability of convenient sites.

Incineration had substantial virtues for public cleansing managers, along with some recognised drawbacks which were, at least until the 1970s, generally considered to be outweighed by the benefits. The most common complaints about incinerators were from local residents about smoke and soot emissions, issues seen by practitioners as

¹² Extracted from Annual Reports. See Footnote 4 above.

¹³ Data in their records indicate that gross annual revenues fluctuated between 3 and 10 percent of operating costs. In no case are net revenues identified.

¹⁴ Glasgow had a long tradition of recovering land for amenity use. For instance, see MLG, DTC 7/3/1/(5) Cleansing Department, Annual Report 1954, p. 7 describing use of incinerator residues to regain ground 'for recreational use'.

¹⁵ See Frank Flintoff and Ronald Millward, *Public Cleansing* (Maclaren and Sons, London, 1968), chapter 14 for an overview of the background and contemporary attitudes to landfilling.

manageable nuisances rather than serious threats to health. The chief benefit was reduction of the volume needing to be buried. Burning typically reduced the bulk by up to 90 percent and, for many years, at least some of the furnace residues could be sold to the construction industry for road bedding and foundation material.¹⁶ What was left, at least in light of contemporary knowledge, was inert material which could safely be buried, either on its own or as part of the sanitary landfill sandwiching arrangement. Furnace exhaust gases during the 1950s and much of the 1960s were largely the same as from domestic fires and consequently was thought only to contribute similar constituents to atmospheric pollution. However, that had become a matter of concern during the 1950s when heavy winter combinations of chimney smoke and fog ('smog') regularly blanketed cities with adverse effects on health. The introduction of the Clean Air Act in 1956 was an early instance of legislation specifically aimed at using environmental cleanliness to benefit public health and was intended progressively to ban the burning of smoke generating fuels by private houses and industry alike. This played a crucial part in encouraging householders to abandon open coal fires which in turn led to changes in what went into dustbins, and perforce to widespread adoption of municipal incinerators, which themselves subsequently contributed to an emerging crisis because furnaces were increasingly unable to burn efficiently the refuse loaded into them. The problem of the individual household was thus transferred to more centralised, if still localised, facilities, which magnified the scale and scope of the problem.

Contemporary incinerators were designed to handle waste which, once ignited would sustain its own combustion with no more encouragement than forced draught. A substantial proportion of domestic refuse had previously been made up of incompletely burned coal and cinders which became re-used as fuel in the furnaces, but once this began to decline with the shift to gas, oil and electric house heating, maintaining the combustion process became difficult. Adding fuel was a solution which added not only to running costs but also sometimes needed expensive modifications to plant.¹⁷ The problems for public cleansing managers became worse when plastics became more common in house wastes towards the end of the 1960s.

¹⁶ See MLG, DTC 7/3/1 (5), Glasgow Cleansing Department, Annual Report 1951, p.8. Annual Report 1958, p.9 notes decline in sales.

¹⁷ MLG, DTC 7/3/1/ (5) Annual Report 1963, p. 3. For further details see J P Staudinger, *Disposal of Plastics Waste and Litter* (Society of Chemical Industry, London, 1970).

These synthetic materials had different chemical compositions and were far from uniform in their burning characteristics, often generating potentially harmful effects to both the equipment and health. Some refused to burn completely, others produced temperatures high enough to damage furnace interiors; still more liberated toxic gasses which could also be precipitated as corrosive acids.¹⁸ Although in 1970 the problem was still not judged by practitioners or their scientific advisors to be at crisis level, there was sufficient concern to cause practitioners growing misgivings about the future of incineration as a key link in the disposal chain. Its removal would substantially increase the demand for landfill space, something whose availability was already proving problematical in heavily built-up areas of conurbation such as Birmingham.

Coping with the potential incineration problem was not easy for practitioners or for their political masters. On the one hand, the chemists who claimed to understand fully the characteristics of plastics were convinced that new designs of furnace could be made to burn these complex materials efficiently and safely along with other more benign refuse. But that would mean new and expensive plant which had yet to be designed and tested, something which the furnace builders would be unwilling to do without the possibility of subsequent sales.¹⁹ Adding to this mixture of difficulties was the impending large-scale reorganisation of local government structures which was due to take place during 1974. It was already clear that new bodies to be known as 'waste disposal authorities' would take over from individual cities that responsibility but even as late as 1972 the exact arrangements were still not finalised.²⁰ Cities, understandably, were reluctant to commit themselves to commissioning designs for new plant when its future ownership and operation were highly uncertain, nor were they eager to make the expenditure to secure new long-term landfill sites either by purchase or leasing.

The combination of an increasingly problematic waste stream and political and economic uncertainty combined in the mid-term to encourage a move away from

¹⁸ For an overview of the plastics industry's view of problems associated with plastics disposal see P Staudinger, *Disposal of Plastics Waste and Litter*, passim.

¹⁹ Staudinger, *Disposal of Plastics Waste and Litter*, pp 52-54.

²⁰ The National Archives, Kew, London, Public Record Office HLG/120/1738, Local Government Organisation, Future Management of Refuse Collection and Disposal, letter, Department of the Environment, 13 October 1972 to N C Bisley, District No. 5 Joint Committee, Kendal.

refuse segregation and incineration and towards the larger-scale practice of landfilling, even though practitioners were by no means convinced that this was the preferable route to take. Although some cities, such as Glasgow, did maintain their existing status, most – including Birmingham and Manchester – lost their disposal roles in 1974. From then on, they collected refuse as usual but passed it over to new organisations which often struggled to cope with unfamiliar tasks. Cleansing the cities went on as usual, but in some cases there was arguably an adverse impact on the environmental quality of refuse disposal. What was gathered in the cities, after all, ended up in the earth outside their boundaries.

Where integrated public cleansing departments had previously been recognised as having an important role, and consequently an elevated position in the structure of municipal hierarchies, this was by no means always the case with the new bodies. The significance and complexity of refuse disposal were seemingly not always recognised in the new organisations, sometimes leading to sustained crisis conditions. The fledgling Greater Manchester Council (GMC), for instance, chose to subordinate its very substantial and hitherto self-standing disposal operation to the Highways Department, which in turn was responsible to the County Engineer's Department.²¹ The disposal operation was led by a 'refuse disposal manager', but his powers were limited to routine daily management. The actual head was the County Engineer who, despite having no background in waste management, was responsible not only for its overall direction but also for formulating and implementing policy. Faced with the additional task of handling a disparate and unfamiliar collection of disposal facilities and methods across the new administrative area, the Engineer and his staff struggled to integrate the operations of existing incineration and landfilling sites and quickly adopted a policy of forsaking incineration, segregation and recycling in favour of using existing landfill sites which were often not well chosen and where, judging by surviving records, waste was simply dumped in a reversion to the worst of pre-war practices.²² The lack of effective, experienced waste management input at the authority's senior policy making level led to a disposal situation so unsatisfactory as to be in a constant state of crisis, which led to the eventual replacement of the

²¹ Greater Manchester County Records Office (subsequently GMCRO), Records of the Greater Manchester County Council, First Report of the Refuse Disposal working Group, 16 April 1973.

²² GMCRO, Report of County Personnel Department, Organisation and Method Unit on Refuse Disposal Division, Section 3, pp 3-12.

unfortunate County Engineer and a major overhaul of the management structure which substantially improved conditions²³. The GMC's troubles exemplified the potential for attempts by central government to improve municipal waste disposal operations nationally by a process of regionalisation and rationalisation to cause significant short term disruptions that, if anything, increased rather than ameliorated the tensions inherent in municipal waste disposal.

At the same time as the Greater Manchester authority was struggling with its new role, there was a gradual formalisation of law, policy and practice which required more careful management of waste because of growing concerns with the welfare, not just of individuals, but also of the broader environment. Especially noteworthy was the Control of Pollution Act passed in 1974 which marked the first major re-conceptualisation of waste in Britain since the Public Health Act of 1875.²⁴ This was triggered partly by the state's recognition that the increasing generation of waste by an ever more affluent society was causing greater demands for waste disposal facilities (already implicitly acknowledged in the re-organisation plans) and partly by a high profile case of dumping highly toxic cyanide chemicals in 1972 which resulted in the hasty drafting and passing of the Deposit of Poisonous Wastes Act.²⁵ The latter's controls were limited to a narrow range of materials and prompted a more considered, broader, re-thinking which produced the 1974 Act with profound implications for local authorities' waste management structures. In particular, they were now –for the first time – legally bound to collect and dispose of waste and the new Waste Disposal Authorities were required to prepare and publish plans for its disposal. Any site where any form of waste was deposited had to be licensed and was subject to controls regarding the containment of pollution, with penalties enforceable for breaches of control regulations. Waste of all kinds, including house refuse, had always been recognised as being potentially dangerous to individuals through spreading disease. Now, though, it was becoming officially recognised as potentially dangerous to individuals in the longer term as well, for instance through the pernicious effects of long-term exposure to toxic substances, and also to the natural

²³ GMCRO, Report on Refuse Disposal Division, pp 13-23.

²⁴ The 1936 Public Health Act added no significant changes to the relevant refuse management sections of the 1875 Act; much of the wording was completely unaltered.

²⁵ For background on the evolution of waste management law in the UK see Stuart Bell and Donald McGillivray, *Environmental Law* (Oxford University Press, Oxford, 2006), chapter 15.

environment, with potential deleterious effects on the water table, birds and animals, and the eco-system as a whole.

The new legislation, and changing attitudes to refuse, had substantial impacts on municipal waste practitioners. Landfill sites were now subject to more controls, suitable ones were becoming harder to find and the waste going into them was getting more complex. Waste disposal authorities were increasingly faced with the need to rent or buy tipping space as their own suitable land was exhausted.²⁶ This added to departmental operating costs, particularly as new sites were frequently at now much further from collection areas. Increased round-trip journey times which concomitantly incurred higher fuel costs, coupled with the need for larger vehicle fleets to maintain rates of removal from cities to disposal sites meant that the gap between tipping and processing costs for refuse began to close. Under these circumstances, separation processes could again become an attractive alternative despite the relatively high the capital costs of plant.

Glasgow – still handling both collection and disposal – reconsidered its disposal options in 1973 following a serious fire at its Polmadie plant where refuse was separated prior to incineration.²⁷ Half the capacity was destroyed and at first it was intended to replace it with a direct incineration unit, abandoning extraction of recoverable materials. The ‘extreme lack’ of convenient landfill sites convinced both the city’s practitioners and councillors that a high ratio of volumetric reduction (approaching the 10:1 currently attained) prior to burial was absolutely essential to maximise the life of existing landfill sites. However parallel experience with another direct incineration unit commissioned in the city during 1970 indicated that this particular method was far from ideal, partly because of higher operating and maintenance costs but also because local ‘complaints [about] grit emissions’ from the plant suggested that running a similar one at the Polmadie site, where large housing areas were close by, would be environmentally unacceptable. The solution was to take a different route altogether and install a ‘high density baling’ system where, after metals extraction, the waste was compressed and then formed into cubes which were

²⁶ This was a long standing problem. See, for instance, Birmingham Salvage Committee, BCC/Bp, Report on the Tipping Site Position, 20 June 1962, p. 7 – ‘the position is not a happy one’.

²⁷ Anon. ‘Glasgow drops a “brick” and makes a “bomb”’, in *Solid Wastes*, April 1977, pp 171-174. This provides source material for the rest of this paragraph unless otherwise indicated.

subsequently removed to their burial ground. When opened in November 1976, the plant was the first in Britain, Glasgow's senior practitioners having examined a then unique system in St. Paul, Minnesota, USA in 1974. To them its 'sheer simplicity' was 'a Disposal Engineer's dream'; the compression ratio was considered adequate, there were no emission pollutants, no added fuel costs and the system could handle not only domestic refuse but also trade waste from a variety of commercial operations. And, as a final bonus, it was even possible to re-use the buildings in which the ruined incinerators had been located.

In contrast, the new Greater Manchester Council, having overcome its initial organisational problems, took a different route and after consideration elected to shift entirely to landfill, partly because all its inherited incinerators were in need of costly replacement and partly because it was considered (though erroneously) that enough suitable and convenient sites could be acquired easily.²⁸ Birmingham, which had lost its disposal function to the new West Midlands County Council, continued to carry on separating and burning despite the problems caused by the altered content of house refuse. Legislation and environmental awareness added to the complexities of waste management and practitioners were increasingly faced with conflicting demands during the 1980s, demands which proved increasingly difficult to satisfy as the decade progressed.

Three factors complicated the work. Firstly, and constantly, local authority budgets were constrained by restrictions on central government allocations of funding. Secondly, the Conservative government of Margaret Thatcher pushed hard for the opening up of refuse services to commercial competition. And thirdly, the regionalised disposal structure created in the 1970s was substantially reformed with the re-introduction of integrated collection and disposal services, creating more upheaval.

Budget constraints were hardly a novelty for refuse practitioners, if only because local authorities had long been inclined to minimise spending in order to reduce the level of the local taxation system – the 'rates' or property taxes out of which council services

²⁸ See footnote 22 above.

were notionally funded. But state support through direct grants also played a large part in holding down these charges and during the 1980s the amount of such funding was substantially reduced, leaving local authorities to choose either to cut services' budgets or raise their local taxes. Policies varied from place to place, but practitioners noted regularly in their reports that services were being maintained despite restricted funding and despite their inability to make savings through undertaking radical reforms in the still labour intensive collection operations. National agreements made with trade unions over working practices had brought about a situation where efficiency was allegedly far lower than it might be. The inclination of the Thatcher administration to open up public sector services to competition provided an opportunity to deal with this situation.²⁹ Political opinion in local authorities was divided as to the merits of privatisation of refuse services but whatever the local sentiment the effect was to bring in rationalisation, particularly of collection services.

The first local authority collection service to be contracted to commercial operators was at the relatively small borough of Southend-on-Sea, Essex in 1980, followed by both Bath and Mendip in Somerset in 1983. The Greater London Council, which actually served a disparate body of smaller individual boroughs, contracted out its collection operations the same year but the large cities maintained their own services. Birmingham and Glasgow both engaged the co-operation of their workforces in successfully competing to retain the work.³⁰ Each city had a large workforce with strong trades union representation and the senior practitioners enlisted their co-operation in shedding a proportion of their labour in order to reduce costs and compete successfully with private competitors. Contracts were let typically for three or five years. The rhetoric of privatisation certainly led to reforms which were unlikely to have taken place without its stimulus, but if the political aim had been to end the municipalities' monopoly of waste management then it was certainly not successful.

Firstly, and most importantly, there was no compulsion to put work out to tender. In 1985, out of almost 250 authorities collecting refuse, only 53 had issued tenders, out

²⁹ Institute of Personnel Management, *Competitive Tendering in the Public Sector* (Institute of Personnel Management, London, 1986), pp18-26.

³⁰ Interview with Mr S J Dagg, former Director of Public Cleansing, Glasgow, 1986-1993, 10 April 2008. This provides the source material for the rest of this paragraph.

of which just 28 contracts had been awarded to private companies. In the balance, local authorities' own 'direct labour organisations' (i.e. the public cleansing department itself) won the work.³¹ Secondly, although not easy to quantify, there was a determination amongst practitioners and workers – but not necessarily local politicians – that the work should properly be retained as a municipal responsibility. The unavoidable impression from the records seen is that practitioners in the largest cities were convinced that service standards would decline with the introduction of the private sector, to the detriment of population and workforces alike. In many cases, private sector jobs were waiting for practitioners, on terms potentially more lucrative than local authorities could offer,³² so it seems likely that at least some measure of altruism motivated them as 'friends' of their cities' environments. It is also noteworthy that disposal operations, then by far the more problematical aspect of refuse management, were largely ignored by the private sector, except where owners of suitable sites leased them to local authorities as landfills and thus worked 'closely' with county disposal authorities.³³

At much the same time as the privatisation initiative was being introduced, the 1974 structure of waste disposal authorities was largely dismantled and, outside the greater London area, disposal responsibilities reverted to a more localised basis. Practitioner opinion was generally in favour of this because, in general, the regional arrangements had never worked smoothly.³⁴ Birmingham's records show persistent complaints about the lack of liaison from its disposal partner, the West Midlands County Council, suggesting that it, like the Greater Manchester Council in the 1970s, had never fully engaged successfully with the scale or complexity of the task. As for the latter, in 1986 a new, separate, Greater Manchester Waste Disposal Authority was set up to serve the just Manchester conurbation, rather than the previous larger area. It promptly engaged far more vigorously – and successfully – with the longer term strategy of refuse management.³⁵ New arrangements for landfill sites were made, and new processing plants were commissioned to incinerate and/or pulverise waste to minimise site demand. In essence, after the 1986 re-organisations, Birmingham and

³¹ 'Privatisation – the Facts' in *Wastes Management* September 1985, pp. 541-542.

³² S J Dagg interview, see footnote 30 above.

³³ 'Waste Disposal 1984 – the Climate of Uncertainty' in *Wastes Management* December 1984, p. 658.

³⁴ S J Dagg interview.

³⁵ GMCRO, Greater Manchester Waste Disposal Authority, Annual Report 1987/88, pp. 12-18.

Manchester reverted to the practices of the 1950s and 1960s, albeit under much stricter regulation and under an increasingly changing conceptualisation of waste.

The growing awareness of the long term, global implications of the dangers that wastes of all kinds might pose to the environment gathered pace during the 1980s. Irrespective of debates and disagreements over the validity of some of the more extreme claims, practitioners in the UK had, by the start of the 1990s, become well aware that domestic wastes and their disposal were now far from the inert quantities which they had been thought to be in the 1950s. A major shift in the concept of municipal refuse management was formalised in 1990 by the passing of the Environmental Protection Act. This, in effect, brought about the replacement of the long standing practitioner paradigm of safeguarding the health of the individual through 'public cleansing' with a substantially revised one which prioritised the need to guard against the potential effects of disposal of house refuse might have on the environment as a whole. Practitioners well practiced in the management of short- and mid-term crises in waste collection and disposal systems were now faced with an even more onerous, problematic, and largely uncertain one involving the long-term impacts of waste management practice. What is more, this new crisis promised to be unending as long as the waste stream continued at its current levels. Their task was further complicated because in many cases cities now increasingly disposed of wastes from commercial premises, principally because this was often a substantial source of income which was welcome to offset costs in the same way that 'salvage operations' had been during the 1950s and 1960s.

The 1990 Act was, despite its paradigm-shifting nature, still of an evolutionary character. It was, like its 1956 predecessor, the Clean Air Act, characterised by being phased in over a number of years. Although local authorities were now specifically instructed as to how to act in the licensing of waste management operators and the location, construction and management of disposal plant and sites, the emphasis was still on managing whatever domestic wastes were produced rather than on controlling their generation. If the public health paradigm had been superseded, that principle remained as firmly in place as ever. Managing municipal refuse became increasingly complex during the 1990s, not least because of the impending arrival of EC legislation introducing incremental taxes on the amounts of all refuse going to burial

and the UK's adoption of legally binding targets to cut gas emissions from landfill sites. The role of municipal refuse managers underwent a greater change in that decade than at any other time since the general establishment of services in the late 1870s and 1880s. By the turn of the 21st century, the public cleansing officer had been redefined as the environmental protection officer and his, or her, duties made far more complex than half a century earlier. The seemingly straightforward and socially beneficial role of 1950 had undergone a metamorphosis into one where the act of ridding the urban environment of domestic detritus had turned into a process which paradoxically challenged the welfare of both the environment and – by extension – the same individuals which it sought to benefit.