
Chapter – V

Compliance Audit Paragraphs

Municipal Administration and Urban Development Department

5.1 Municipal Solid Waste Management

5.1.1 Introduction

Government of India notified “The Municipal Solid Waste (Management and Handling) Rules 2000” in September 2000 to manage the increasing quantum of waste generated due to urbanization. Pursuant to this, Government of the composite State of Andhra Pradesh formulated guidelines in June 2005 to promote awareness among the public about the principles of waste management and ensure that the cities and towns in the State are clean with high quality of public health.

5.1.2 Audit Approach

Audit of implementation of Solid Waste Management (SWM) Rules 2000 by Urban Local Bodies (ULBs) in Telangana was conducted during April- June 2015, covering the period 2010-11 to 2014-15. Audit methodology involved a test check of records of two Municipal Corporations (Nizamabad & Warangal) and two Municipalities (Mahbubnagar & Nalgonda) in the State. Audit findings were benchmarked against criteria sourced from Municipal Solid Waste (Management & Handling) Rules 2000, Guidelines for Municipal Solid Waste Management issued by The Commissioner & Director of Municipal Administration (CDMA), Hyderabad in June 2005, Bio Medical Waste (Management & Handling) Rules 1998, E-Waste (Management & Handling) Rules 2011 and orders and circulars issued by Government of Andhra Pradesh from time to time.

Audit findings

5.1.3 Fund Utilisation

The State Government did not earmark any specific allocation for implementation of the activities under MSW management rules. However, GoI released grants through 12th Finance Commission for implementation of MSW management during the period from 2005-06 to 2010-11. The details of releases and expenditure incurred under 12th FC grants, in the four test-checked ULBs are given below:

Table 5.1

(₹in crore)

Sl. No.	Name of the ULB	Grant received	Utilised
1	Mahbubnagar	3.45	3.37
2	Nalgonda	2.91	2.90
3	Nizamabad	7.62	7.61
4	Warangal	13.98	13.98

Source: Utilisation Certificates

Expenditure shown to have been utilised out of the 12th Finance Commission grants, was not entirely incurred for the purpose for which it was granted. Specific instances

in this regard noticed during a test check of the records of the sampled Municipalities/Corporations are detailed below:

- i. In Nizamabad Municipal Corporation, an amount of ₹1.0 crore was released to the Revenue authorities for acquisition of garbage dumping yard (March 2010). The amount was deposited in the bank. Since the land allotted belonged to Government, the Revenue authorities returned ₹97.10 lakh in March 2014. Balance of ₹2.90 lakh along with interest of ₹32 lakh was not returned to the Corporation. The Commissioner, instead of remitting ₹97.10 lakh into grant account, incorrectly deposited the amount into the General Fund.

Government replied (October 2015) that the ULB was instructed to pursue the matter with District collector to get refund of ₹2.90 lakh along with interest. However, the misclassification of deposit was not clarified.
- ii. In Warangal, an amount of ₹1.45 crore was released to the Revenue authorities (February 2012) for acquisition of land for dumping yard. However, the land was yet to be identified by the Revenue authorities. Government, in its reply (October 2015) assured action in getting back the amount with interest.
- iii. Funds were kept in fixed deposit in banks by Nizamabad Municipal Corporation (₹69.07 lakh)¹ and Mahbubnagar² (₹90 lakh) and Nalgonda Municipalities (₹30 lakh). Government replied (October 2015) that the deposits were withdrawn and credited to the Fund account along with interest.
- iv. Greater Warangal Municipal Corporation initially deposited fund released under 12th Finance Commission grant in fixed deposits. This was later withdrawn and irregularly diverted (May 2014) ₹1.23 crore to Rajiv Awas Yojana (RAY) Scheme in contravention of the guidelines. Government assured that the amount of ₹1.43 crore deposited for RAY scheme would be returned.
- v. In two test checked ULBs³ an amount of ₹8.47 crore was incurred beyond the stipulated period of 2005-06 to 2010-11 contrary to the guidelines of 12th Finance Commission grants. Government accepted (October 2015) the observation and stated that the expenditure beyond the stipulated period was due to administrative reasons.
- vi. In Nizamabad, expenditure amounting to ₹53.54 lakh was incurred on inadmissible items like formation of roads, wage payment to sanitary workers etc. Government replied (October 2015) that entire amount was reimbursed to the 12th FC grant. However, no evidence in support of the reimbursement was produced by Government.

¹ ₹60.00 lakh in February 2007 and ₹9,06,975 in March 2007 (State Bank of Hyderabad)

² Mahbubnagar – ₹30.00 lakh in August 2007 (Vijaya Bank) and ₹60.00 lakh in December 2007 (Indian Overseas Bank & Andhra Bank).

³ Mahbubnagar – ₹1.18 crore and Warangal – ₹7.29 crore

- vii. Nizamabad Municipal Corporation transferred an amount of ₹22.36 lakh to Provident Fund Commissioner from the grants of Twelfth Finance Commission in contravention to the guidelines. Also no action was taken to recoup the amount.

5.1.4 Implementation of MSW

MSW Rules envisage collection, segregation, storage, transportation, processing and disposal of municipal solid waste. Guidelines were developed by the erstwhile Government of Andhra Pradesh for all stages of municipal solid waste management in June 2005.

The MSW rules are to be implemented by every municipal authority within its territorial. Parameters and criteria prescribed in MSW Rules 2000 in this regard are given below:

Parameter	Compliance criteria
Collection of Municipal Solid Waste (MSW)	Organising house-to-house collection and transfer to community bin.
Segregation of MSW	Organising awareness programmes for segregation of wastes and promote recycling or reuse of segregated material.
Storage of MSW	Accessible storage facilities based on quantities of waste generation and population densities. Colour coding system for different types of wastes.
Transportation of MSW	Covered vehicles for daily clearance of wastes and avoiding multiple handling of wastes.
Processing of MSW	Municipal authorities should adopt suitable technology or combination of such technologies to make use of wastes so as to minimize burden on landfill.
Disposal of MSW	Land filling should be restricted to non-biodegradable, inert wastes and other wastes that are not suitable either for recycling or for biological processing.

Audit findings with regard to planning for implementation of MSW rules are given below:

5.1.4.1 Collection and Segregation of waste

(i) *Non-preparation of Action Plan for collection and disposal of waste*

State Government instructed (June 2006)⁴ all the ULBs to prepare Action Plans and get them approved by C&DMA for specific operations like systematic segregation at source, collection and transportation from source to collection points, transportation from collection points to transfer stations and safe disposal of solid waste.

⁴ Government of Andhra Pradesh, Department of Municipal Administration & Urban Development Memo No.11949/12/2006-1 Dated 27 June 2006.

Audit scrutiny revealed that no such plan was prepared in test checked Corporations and Municipalities⁵. Government replied (October 2015) that Mahbubnagar Municipality had prepared action plan for the current financial year (2015-16). However, specific reply was not furnished for other ULBs.

(ii) Segregation and storage at source

Segregation and storage of solid waste is the most critical component in the whole process of MSW management, since this step guides the subsequent steps to be taken in handling solid waste. Government replied (October 2015) that the services of MEPMA and Nagara Deepika members were being utilized in all the ULBs to sensitize the masses on the benefits of segregation of waste. As a result, many ULBs started selling of the dry resource to recyclers.

(iii) Awareness among citizens

Generating awareness among the public with regard to the procedures and creation of an enabling environment is the key to success of proper segregation and storage at source. In order to encourage the citizens, municipal authorities should organize awareness programmes⁶ for segregation of wastes and promote recycling or reuse of segregated materials. However, in one ULB⁷, public awareness programme was conducted and in three⁸ test checked ULBs records to prove conducting such programmes were not available.

Government replied (October 2015) that the door to door awareness campaigns were held through MEPMA & Nagara Deepika members on segregation and storage of waste in two bins (dry & wet waste). Several meetings with community organizers were also conducted to propagate the message of segregation at source.

(iv) Non-segregation at source

Segregation of garbage at source is primarily meant to keep the two broad categories of solid waste generated separately in different containers viz., bio-degradable waste in one container and non-biodegradable waste in another container. However, segregation of waste at source by adopting two bins system for bio-degradable and non-biodegradable waste was not implemented in the test checked Corporations and Municipalities.

Segregation and storage of solid waste at source will differ based on the type of solid waste generated. Broadly, the type of solid waste generated can be categorized into four types: (a) domestic and trade waste (b) construction waste (c) bio-medical waste and (d) industrial waste.

In the test checked ULBs, there was no system for segregation and separate storage of waste generated at source in respect of the above categories.

⁵ Nizamabad & Warangal Corporations and Mahbubnagar & Nalgonda Municipalities

⁶ Sl. No.2 of Annexure 9 of State Guidelines on MSW issued in July 2005

⁷ Warangal

⁸ Mahbubnagar, Nizamabad and Nalgonda

In two test checked ULBs⁹, 37 hospitals/Diagnostics/Clinics did not have a tie up with agencies for segregation and disposal of bio-medical waste. This would result in mixing of bio-medical waste with municipal solid waste. However, segregation of garbage at source was not practiced. Inclusion of suitable clause for segregation and disposal of bio-medical waste by such units at the time of issue of licenses would ensure compliance as contemplated.

(v) **Arrangements for primary collection points**

Collection of MSW has to be done from dispersed sources of its generation/storage, taking into account the quantum of garbage generated in the municipal area. Quantum of garbage generated in the test checked ULBs ranged from 56 MTs to 234 MTs per day. In these ULBs (except in Nalgonda) garbage was collected door-to-door in tricycles through outsourced agencies. Since segregation was not done at the source point, door-to-door collection in two separate compartments for bio-degradable and recyclable was not done. Further, rag pickers were not organized for improving MSW collection.

However, 100 *per cent* door-to-door collection of garbage was not achieved in full in any of the test checked ULBs. Government accepted (October 2015) that the segregation of waste at source was not satisfactory. It was, however, stated that about 30 *per cent* segregation was being done by Public Health workers during collection, and rag pickers at secondary storage points and at dump yards.

(vi) **Non-levy of garbage collection fee**

As per MSW Rules (Rule 5.4), garbage collection fee should be collected from bulk garbage generators while simultaneously ensuring 100 *per cent* collection of garbage. Garbage collection fee is leviable on establishments such as hospitals and nursing homes, diagnostic centres, clinics, restaurants and hotels, function halls and lodges and private guest houses including clubs, private markets including agriculture markets, private commercial complexes with 20 and more shops inside, private hostels, cinema halls and places of entertainment, road side vegetable vendor addas and road side weekly markets, certain selected types of workshops etc.

However, it was observed that the test checked ULBs were not levying fee from bulk garbage generators. Audit assessed loss of revenue of ₹1.22 crore in two ULBs¹⁰. The other two ULBs¹¹ did not furnish details of bulk garbage produce.

In one ULB¹², though a Council Resolution was passed for collection of user charges at ₹one per day per house, the percentage of collection was 6 *per cent* and 11 *per cent* in 2013-14 and 2014-15 respectively. There was short collection of ₹1.27 crore during the period.

⁹ Nizamabad (26) and Mahbubnagar (11)

¹⁰ Nalgonda (₹120 lakh) and Warangal (₹1.94 lakh)

¹¹ Mahbubnagar and Nizamabad

¹² Warangal Municipal Corporation

Government replied (October 2015) that ULBs were collecting user charges from bulk waste generators and stated further that Nizamabad Municipal Corporation was collecting user charges at ₹3.20 lakh per month from the commercial establishments.

5.1.5 Transportation of solid waste

Local bodies are to identify locations where solid waste intermediate storage facilities should be created. Primary transportation of solid waste involves movement from source of generation to the intermediate storage facility. Secondary transportation involves carriage of solid waste from intermediate storage facility to the waste treatment plants/land fill sites. Depending on the quantity of solid waste generated and nature of facilities at the final treatment/processing/landfill sites, a mix of transport devices should be put into place.

Audit observations in this regard are as follows:

- i. Based on the norms for collection/transportation of garbage at 35,165 households etc., in Nalgonda, audit observed that such operation required 16 tractors/tippers and three autos. As such, procurement of five tractors and four autos was found to be excess, resulting in avoidable excess expenditure of ₹0.47 crore¹³. Government replied (October 2015) that many of the vehicles owned by ULB were under repair, for which spare parts were not available in the market. The ULB failed to take appropriate measures to dispose of the unserviceable vehicles.
- ii. In Warangal, 58 vehicles were deployed¹⁴ for clearance of 240 MTs of garbage per day. However, audit assessed the capacity of garbage clearance of 58 vehicles as 633 MTs. It revealed that vehicles procured were more than twice the requirement. Government replied (October 2015) that the waste generated in the city was 360 MTs against 275 MTs projected with the capacity of vehicles procured under 12th FC grants. As such, 15 more tractors were engaged by ULB to collect and transport the waste. However, the details regarding 360 MTs of waste generated in the city were not enclosed.
- iii. In Mahbubnagar Municipality, one bio-pulverizer was procured in April 2008 at a cost of ₹6.88 lakh. However, it was not put to use till March 2015 due to non-availability of Power and water supply at dumping yard. As a result, segregation of MSW was not done and the amount of ₹26.73¹⁵ lakh remained unfruitful. Government promised (October 2015) that the bio-pulverizer would be put to use by providing required infrastructural facilities.
- iv. Nizamabad Municipal Corporation, entered into agreements for transportation of municipal solid waste to the dumping yards. It was noticed in audit that the details of vehicles were not entered in inward register at the dumping yard.

¹³ 3 Autos @ ₹4.58 lakh per vehicle and 5 tractors/ trailers @ ₹6.65 lakh per vehicle.

¹⁴ Dumper Placers (19), Tippers (3), Compactor (6) and Tractor (30).

¹⁵ (₹9,88,708 + ₹9,93,349 + ₹6,88,878)

However, payment of ₹78.07 lakh¹⁶ was made to the contractors from March 2013 to February 2015. Statutory deduction of Income Tax @2.26 per cent amounting to ₹1.76 lakh was not made from these contractual payments. Government also not furnished reply (November 2015).

5.1.6 Processing of MSW

Suitable technology has to be adopted to make use of waste so as to minimize the burden on landfill. Bio-degradable wastes should be processed by composting, vermi-composting, anaerobic digestion or any other appropriate biological processing for stabilization of wastes. Mixed waste containing recoverable resources should follow the route of recycling. Incineration with or without energy recovery including pellatisation can also be used for processing wastes into specific cases.

- i. As per MSWM guidelines, Municipal authorities should adopt suitable technology or combination of such technologies to make use of wastes so as to minimize burden on landfill. In the test checked ULBs, no technology was adopted for processing of waste to minimize burden on landfill. Government in its reply (October 2015) stated that of two¹⁷ agencies permitted to process and dispose the waste generated in 30 ULBs, one agency had stopped functioning since January 2014, while the other unit would commence operation from December 2015. Thus, the objective of processing the waste could not be met.
- ii. The e-waste (Management and Handling) Rules 2011 define e-waste as “Waste Electrical and Electronic equipment including all components sub-assemblies and their fractions”. E-waste is considered dangerous to human health and environment as it contains certain materials like lead, cadmium and mercury that are hazardous depending on their conditions and density. The ULBs should ensure that, e-waste/orphaned products, if found to be mixed with MSW, is properly segregated, collected and is channelized to either authorized collection centre or dismantler or recycler.
- iii. Further, the Municipal authorities are responsible for ensuring safe collection, storage, segregation, transportation, processing and disposal of plastic waste, setting up of plastic waste collection centres, take measures to encourage the use of plastic waste by adopting suitable technology such as in road construction etc.

Segregation of e-waste was not done either at source or at transfer station/dumping yard in any of the test check Municipalities/Corporations leading to environmental hazard.

¹⁶ 4 vehicles: ₹19.87 lakh; 1 vehicle: ₹22.31 lakh; 2 vehicles: ₹17.91 lakh and 1 vehicle: ₹17.98 lakh

¹⁷ M/s Shalivahana (MSW) Green Energy Ltd & M/s Hema Sri Power Projects

5.1.7 Disposal of MSW

Waste disposal practices comprise (i) composting/energy production after segregation of bio-degradable waste (ii) recycling of recyclable solid waste for different activities and (iii) disposing inert materials such as dust, sand, silt, street refuses, bricks, stones, broken glass pieces etc., in a sanitary landfill.

- i. In all the test checked ULBs, MSW was disposed off in dumping yards affecting the environment. None of the above mentioned disposal practices were followed in any of these ULBs.
- ii. In violation of MSW Rules, no system was adopted for generation of power from garbage in the test checked ULBs.
- iii. In Nizamabad Municipal Corporation, an agreement was entered into with M/s. Shalivahana MSW Green Energy Limited in December 2011 for establishing waste processing facility at the municipal dumping yard at Nagaram. The contract period expired in November 2014 and the contractor had not set up the processing plant on the grounds that municipal garbage was not processed and could not be used for their power project. Thus, ULB failed to ensure segregation of solid waste before entering into the contract.

Government accepted (October 2015) that the disposal of MSW was not started by the agency. However, specific reasons for not turning up to the contract by agency and the action initiated for processing the waste were not clarified by the Government.

- iv. In Mahbubnagar Municipality, compost yard was constructed at Koilkonda 'X' Road at a cost of ₹9.88 lakh in December 2010. In addition, segregation shed at dumping yard was constructed at a cost of ₹9.93 lakh in August 2011. However, this was not put to use till October 2015.
- v. Government promised (October 2015) compliance to make use of the compost yard by providing electricity.

5.1.8 Monitoring mechanism

MSW Rules stipulate that Annual Reports in prescribed form should be furnished by the Municipal Authority to the Secretary in charge of the department of urban development indicating, *inter-alia*, the quantity and composition of solid waste, storage facilities, transportation, details of slums etc., with a copy to the State Board or the Committee on or before 30th day of June every year. The State Board, in turn, prepares the annual report with regard to implementation of MSW Rules, 2000 and forwards it to Central Pollution Control Board.

Scrutiny of the test-checked ULBs revealed that there was no evidence of compliance with the procedure of forwarding the annual report to the State Pollution Control Board. The Board also confirmed that, barring the reports for the year 2012-13 by

Nizamabad and for the years 2010-14 by Warangal, other two test-checked ULBs (Nalgonda and Mahbubnagar) had not forwarded the annual reports.

As per the annual report of the State Board for the year 2014-15, none of the ULB's in the State adopted 'two bin'¹⁸ system and manual handling of waste was being carried out in most of the ULBs. Only eight *per cent* of households in State were covered under source segregation. Further, only 11 out of 68 ULBs in the State set up vermin compost plants and one ULB (Karimnagar) has established power plants as part of processing of waste and disposal facilities. Most ULBs were dumping the waste in existing dump sites.

The test checked ULBs have not constituted Monitoring Committee headed by the Commissioner for monitoring and review of the progress of implementation of the scheme in compliance with the Rules.

As per Manual of Role & Responsibilities of various functionaries in ULBs the Medical Officer of Health have to periodically inspect markets and other places where articles of food are sold for compliance to Public Health regulations and sanitary requirements. Records relating to periodical inspections conducted were not maintained in the test checked ULBs.

5.1.9 Conclusion

The ULBs were not compliant with the MSWM Rules in several regards. Segregation of MSW was not done at source point and door-to-door collection was not achieved 100 *per cent*. Requisite fee was not levied on generators of bulk garbage. Absence of arrangements for segregation of MSW at source or at the transfer stations/disposal site burdened the dumping yard, leading to health hazards and inconvenience to citizens. Vehicles were procured in excess of requirement. Appropriate technology was not adopted for processing of waste to minimize burden on landfill. There was no system for generation of power from garbage. The monitoring mechanism was not adequate

5.2 Avoidable payment of interest and damages - ₹1.08 crore

Delayed remittance of ESI contributions by Warangal Municipal Corporation resulted in avoidable payment of ₹1.08 crore towards interest and damages

As per the provisions of the Employees' State Insurance (ESI) Act 1948¹⁹, the employer is liable to pay the ESI contributions to the ESI Corporation within 21 days from the last day of the calendar month in which the contributions fall due. In case of failure to pay the contributions within the specified period, the employer is liable to pay interest at the rate of 12 *per cent* per annum for each day of default/delay²⁰. In addition, damages are also payable²¹.

¹⁸ Bio-degradable, Recyclable and other waste

¹⁹ Sections 39 and 40 read with regulation 31 of the ESI (General) Regulations, 1950

²⁰ Regulation 29 read with regulation 31 of ESI (General) Regulations, 1950.

²¹ Regulation 31 and 26 of ESI (General) Regulations, 1950.

Warangal Municipal Corporation²² (WMC) introduced ESI scheme to the outsourced contract public health workers with effect from August 2010. Contributions for the period from August 2010 to February 2011²³ and January 2012 to December 2012²⁴ amounting to ₹1.53 crore were remitted by WMC, the principal employer, belatedly in August 2013²⁵. The ESI Corporation served notices on WMC for interest and damages (during August 2013 and July 2015) for ₹1.17 crore. Out of this, WMC paid charges amounting to ₹1.08 crore as of July 2015 (*Appendix 5.1*).

Government attributed the delay in remittances to pending adjustments through online system. The reply of the Government (November 2015) is not acceptable as arrangements should have been made for prompt payment of ESI contributions.

Thus, failure of WMC in ensuring prompt remittances of ESI contributions resulted in avoidable payment of ₹1.08 crore and committed liability of ₹0.09 crore levied towards interest and damages.

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²² Greater Warangal Municipal Corporation (GWMC) from January 2015

²³ Contributions for the period August 2010 to February 2011 - ₹56,19,362

²⁴ Contributions for the period January 2012 to December 2012 - ₹96,33,197

²⁵ Contributions were paid for the period March 2011 to December 2011 in time.

