



Do you want to improve your solid waste collection process?

Would you like to improve this process in the following areas?

- **Meet environmental compliance regulations.** Electronic monitoring devices on dumpsters improve collection efficiency and provide managers with accurate tracking and record keeping. Media area is solid waste.
- **Improve workers' safety and health.** Reduced number of dumpster pick-ups will require less worker involvement, thus reducing worker exposure to any safety concerns.
- **Increase productivity.** Reduce the number of pickups because dumpsters are emptied only when completely full.
- **Save money.** Solid waste collection and disposal costs are reduced through more efficient refuse collection.



Compacting Dumpster System

*Waste compacting dumpsters equipped with electronic fullness monitoring systems can significantly improve refuse collection efficiency. Typical refuse collection practices call for scheduled service of installation dumpsters without regards to dumpster fullness. Reducing the collection frequency can result in cost savings since refuse collection costs typically reflect the frequency of dumpster collections. Compacting dumpsters can reduce the pickup frequency by 40% to 80% as compared to non-compacting refuse containers. To further maximize efficiency and costs reduction, the compacting dumpsters should only be emptied when full. Fullness monitoring systems can electronically detect the level of refuse in the dumpster and send a signal to a control facility when a threshold level has been exceeded. The collection service is informed to service only those dumpsters that are full. **This technology has been successfully demonstrated at Naval Training Center Great Lakes.***

How can you achieve these improvements?

Install electronic fullness monitoring systems on existing or new compacting dumpsters.

How does this system work?

Electronic fullness monitoring systems have digital transducers that detect the level of fullness in the dumpsters. When the level is exceeded, they send a pickup request either as a FAX to the dispatch office or through a modem to a computer.

How will this system save you money?

Reduce the number of collection and disposal trips from dumpsters to the transfer station facility. If refuse collection services are contracted, you must ensure that the contract specifies bidding for this "smart dumpster technology" option.

Typical Process Flow Diagram



How can this method eliminate or reduce pollution?

This P2 method improves refuse collection efficiency. Implementation will result in the following pollution reductions:

- Reduced air emissions and fuel consumption from reduced number of collection trips.
- Reduced vehicle and road maintenance due to less truck traffic.

Which operations can benefit most from this method?

This method can be used at all Navy installations that perform refuse collection and disposal.

How can this method reduce regulatory compliance concerns?

Implementation of electronic fullness monitoring systems on new or existing compacting dumpsters will result in the following regulatory compliance benefit:

- Reduce emissions from collection vehicles and help installations meet local air emission reduction goals.



Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by using pollution prevention technologies and methods to reduce compliance requirements. This fact sheet is one in a series designed to encourage activities to use pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

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