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SAN DIEGO, CA 92108
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WWW.ONLINECPI.ORG

MEMORANDUM

DATE: December 6, 2010

TO: Chris Gonaver, Environmental Service Department (ESD)

CC: Mayor and City Council, City of San Diego

FROM: Murtaza H. Baxamusa, Center on Policy Initiatives

SUBJECT: Need for reviewing Fortistar contract for methane gas violations at Miramar Landfill

Recent revelations in the media and CPI's research show an immediate need for a complete investigation of the operations of Fortistar Methane Group at Miramar landfill.

1. Repeated violations by contractor

Since April of 2009, Fortistar Methane Group has been cited and fined for elevated levels of Methane, failure to submit records, failure to maintain equipment in good operating condition, gas leaks, engine leaks, and elevated levels of nitrogen dioxide. CPI has also learned that Fortistar's standard operating procedures fail to use flaring systems at Miramar, which are designed to burn off methane not used in energy generation. Other landfill operators constantly expand their fugitive gas collection well systems to keep up with the increased amount of buried waste and to stay in compliance with the required surface emission standards. However, it is unclear whether Fortistar has been as aggressive, as several sections of the Miramar landfill may currently be without wells or disconnected from the main system.

2. City's failure to take action

The City was notified of the CalRecycle's intent to designate Miramar as being in violation of required state requirements in December, 2009. This followed several inspections where the methane level and hydrogen sulfide levels exceeded state standards, often leading to unsafe conditions for Miramar landfill workers and public. The city failed to submit adequate mitigation measures to CalRecycle which led to placing the city landfill of the List of Violators in March, 2010.

3. City dissolving ISO 14001 certification without notice

To compound the problem of contractor failure, the Environmental Management System at Miramar was quietly dissolved during the same time period. Under the requirements of the International Organization of Standardization, ISO 14001 provides standards for the development of an Environmental Management System to improve managerial efficiency and best environmental practices. Although it does not set the performance standards, the environmental management system creates the process for the standards to be met in a systematic manner, within the context of governing policies and regulations, such as the greenhouse gas emissions.

ISO 14001 made operations at Miramar more efficient and generated cost savings of over \$868,000 per year, according ESD. (see attached report to Second EMS Initiative for Government Entities Final Report in 2002).

In conclusion, the city must immediately conduct a comprehensive investigation and review of the Fortistar Methane Group contract, as well as contract monitoring and enforcement procedures. In addition, the city should consider reinstating ISO 14001 urgently to deal with the environmental management issues at Miramar landfill.

Sincerely,



Murtaza H. Baxamusa, Ph.D. AICP

Attachments:

1. Disposal facility Inspection Report, California Integrated Waste Management Board, October 13, 2009.
2. Notice of Intent to Include Miramar Landfill in Facilities that Violate State Minimum Standards, California Integrated Waste Management Board, December 3, 2009.
3. Notice of Inclusion in Facilities that Violate State Minimum Standards, CalRecycle, March 9, 2010.
4. Case study of San Diego Miramar Landfill. Second EMS Initiative for Government Entities Final Report, 2002. Pp. 51-55.


Disposal Facility Inspection Report (52)

SWIS Facility File Number (99-xx-9999)		Inspection Date		Program Code	
37-AA-0020		10/13/2009		LEA Periodic	
Time In	8:30AM	Time Out	12:00PM	Inspection Time	3.5 hours

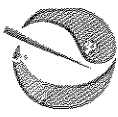
Facility Name		Received By	
West Miramar Sanitary Landfill		City Of San Diego	
Facility Location		Owner Name	
5180 Convoy Street		Marine Corps Air Station Miramar	
Inspector		Also Present (Name)	
Jacquie Adams		Rory Clay, ESD	

THE ABOVE FACILITY WAS INSPECTED FOR COMPLIANCE WITH APPLICABLE SECTIONS OF THE DIVISION 30 OF THE PUBLIC RESOURCES CODE (PRC) AND TITLE 14 AND TITLE 27 CALIFORNIA CODE OF REGULATIONS (CCR)

<input type="checkbox"/>	No Violations or Areas of Concern
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V	A	Regulations
X		20921 - Gas Monitoring and Control
		<p>Comments: Gas Monitoring and Control. To provide for the protection of public health and safety and the environment, the operator shall ensure that landfill gas generated at a disposal site is controlled in such a manner that the concentration of methane gas migrating from the disposal site must not exceed 5% by volume in air at the disposal site permitted facility boundary.</p> <p>After installing 18 of 23 landfill gas monitoring wells in compliance with the West Miramar Landfill Title 27 Gas Compliance Plan, the operator notified the LEA on September 16, 2009 of methane gas readings exceeding 5% in gas probes 4, 5, and 10. The operator followed up in seven days pursuant to 27 CCR 20937. A remediation plan is being developed.</p> <p>Today the LEA monitored gas monitoring probes 4, 5, 6, and 10 and found gas exceedances continue in the same probes previously identified. See LFG Report attached.</p> <p>On October 8, 2009 the operator submitted an extension request to the CIWMB for the remaining 5 gas monitoring wells which complete the West Miramar Landfill title 27 Gas Compliance Plan.</p>

Inspection Report Comments:
<p>Processed Green Material has been applied to the outer slopes in the Phase 1 portion of the landfill. Some of the piles are waiting to be applied and some of the material has been spread over the side slope. 27 CCR 20686 requires the beneficial reuse of solid wastes at the landfill to be applied in compliance with the Joint Technical Document (JTD). The JTD states "Shredded green waste is used for erosion control as a beneficial reuse. It is spread at a thickness of approximately 6 inches over erosion-prone areas of the landfill." The LEA observed piles of green waste over 12 inches throughout the slope. The green material should be spread/compacted to an appropriate thickness otherwise it may be perceived as overuse.</p> <p>Waste loads continue to be divided with packer trucks directed to the new lined cell. Other commercial loads and the public utilize a cell in the Phase 2 area. Commercial vehicles were dumping at the bottom and the public was safely using the top deck for unloading.</p> <p>Records for traffic, tonnages and special occurrences were reviewed.</p>



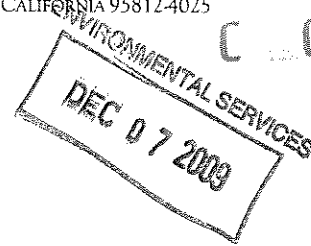
LINDA S. ADAMS
SECRETARY FOR ENVIRONMENTAL
PROTECTION

CALIFORNIA INTEGRATED WASTE MANAGEMENT BOARD



ARNOLD SCHWARZENEGGER
GOVERNOR

1001 I STREET, SACRAMENTO, CALIFORNIA 95814 • P.O. BOX 4025, SACRAMENTO, CALIFORNIA 95812-4025
(916) 341-6000 • WWW.CIWMB.CA.GOV



C O P Y

MARGO REID BROWN
CHAIR
MBROWN@CIWMB.CA.GOV
(916) 341-6051

CERTIFIED MAIL
(7008 1140 0002 3861 1035)

SHEILA JAMES KUEHL
SKUEHL@CIWMB.CA.GOV
(916) 341-6039

December 3, 2009

JOHN LAIRD
JLAIRD@CIWMB.CA.GOV
(916) 341-6010

Mr. Stephen Grealy, Deputy Director
City of San Diego Environmental Services Department
Waste Reduction and Disposal Division
9601 Ridgehaven Court, Suite 320
San Diego, California 92123

CAROLE MIGDEN
CMIGDEN@CIWMB.CA.GOV
(916) 341-6024

Subject: Notice of Intent to Include the West Miramar Landfill (37-AA-0020) in the Inventory of Solid Waste Facilities that Violate State Minimum Standards

ROSALIE MULÉ
RMULE@CIWMB.CA.GOV
(916) 341-6016

Dear Mr. Grealy:

A review of the monthly Local Enforcement Agency (LEA) inspection reports of October and November 2009 for the West Miramar Landfill indicate that the following State Minimum Standard (SMS) has been violated during that period:

❖ **27 CCR 20921(a)(2) – Gas Monitoring and Control**

The California Integrated Waste Management Board (CIWMB) is required to place in the Inventory of Solid Waste Facilities that Violate State Minimum Standards (Inventory) facilities that have repeat violations of Title 27 California Code of Regulations.



INTEGRATED
WASTE
MANAGEMENT
BOARD



West Miramar Landfill

December 3, 2009

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CIWMB STAFF IS PROPOSING TO INCLUDE THE WEST MIRAMAR LANDFILL (37-AA-0020) IN THE INVENTORY PURSUANT TO PUBLIC RESOURCES CODE SECTION 44104 FOR REPEAT VIOLATIONS OF THE ABOVE STANDARD.

The LEA will continue to be responsible for inspecting your facility on a monthly basis and will also provide written documentation (inspection reports) regarding the compliance status of your facility with respect to the standard cited above. If the violation is corrected and documented on an inspection report within 90 days of receipt of this notice, the facility will not be included in the Inventory.

If you have any questions regarding this action, please call Tadese Gebrehawariat at (916) 341-6402 or me at (916) 341-6337.

Sincerely,

 Attachment 2

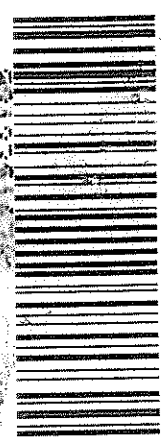
Zane Poulson, Supervisor
MSW Facilities & EA Inspections & Enforcement A
Compliance Evaluation and Enforcement Division

Cc: Mr. Jack Harkins, Deputy Chief of Staff
Installations & Logistics
Marine Corps Air Station Miramar
P.O. Box 452007
San Diego, California 92145-2007

Mr. William E. Prinz, Program Manager
City of San Diego, Development Services Department
Solid Waste Local Enforcement Agency
1010 2nd Avenue, Suite 600 MS606L
San Diego, California 92101-4998

Cal/EPA Integrated Waste Mgt Board
P.O. Box 4025 (MS-10A-17)
Sacramento, CA 95812-4025
Attn: **Tadese Gebrehawariat**
Waste Compliance & Mitigation Program
MSW Facilities, Inspection & Enforcement (B)

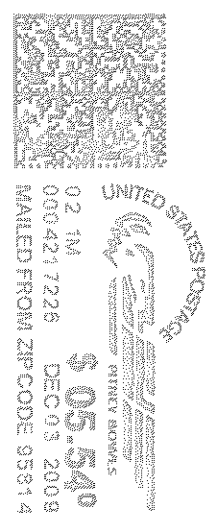
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ENVIRONMENTAL SERVICES
DEC 07 2009

Mr. Stephen Grealy, Deputy Director
City of San Diego Environmental Services Department
Waste Reduction and Disposal Division
9601 Ridgehaven Court, Suite 320
San Diego, California 92123



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DEPARTMENT OF RESOURCES RECYCLING AND RECOVERY

801 K STREET, MS 19-01, SACRAMENTO, CALIFORNIA 95814 • (916) 322-4027 • WWW.CALRECYCLE.CA.GOV

RECEIVED

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March 9, 2010

SOLID WASTE L.E.A.

City Council of the City of San Diego
City of San Diego Administration Building
202 "C" Street, 12th Floor
San Diego, California 92101

SUBJECT: Notification of the Inclusion of the West Miramar Landfill, Facility No. 37-AA-0020 on the Inventory of Solid Waste Facilities Which Violate State Minimum Standards

Dear Members of the City Council:

The West Miramar Landfill in the City of San Diego has been placed on the Inventory of Solid Waste Facilities Which Violate State Minimum Standards (Inventory), maintained by the Department of Resources Recycling and Recovery (DRRR), formerly the California Integrated Waste Management Board (CIWMB), pursuant to Public Resources Code (PRC) 44104. The Inventory is a list of solid waste facilities in the state of California that are violating the State Minimum Standards (SMS) for solid waste handling and disposal. The SMS regulate the design and operation of solid waste facilities in order to protect public health, safety, and the environment. Regulations promulgated in 2003, require the DRRR to notify local governments when a facility, in the local jurisdiction, is placed on or removed from the Inventory. (See Title 14, California Code of Regulations (CCR), Sections 18360 – 18368).

Solid waste facilities are placed on the Inventory after chronic violations of SMS occur. The City of San Diego Development Services Department, acting as the Local Enforcement Agency (LEA), is certified by the DRRR to inspect and enforce state standards at solid waste facilities. When a facility violates the same standard for two consecutive months, as documented by the LEA's monthly inspections, DRRR staff sends a Notice of Intent (NOI) letter to the owner/operator notifying them of the DRRR's intent to include the facility on the Inventory. The NOI provides the operator 90 days to correct the violation. If the violation continues, DRRR staff consults with the LEA prior to issuing an inclusion letter that places the facility on the Inventory. All facilities listed on the Inventory are required by statute to be under a compliance schedule, issued by the LEA, which ensures diligent progress is being made to correct the violation.

The West Miramar Landfill is being included on the Inventory for continuing violation of the following State Minimum Standard:



West Miramar Landfill Inventory Letter

March 9, 2010

Page 2 of 2

- **Title 27, California Code of Regulations, Section 20921(a)(2) – Gas Monitoring and Control**

A current listing of the Inventory is available online at:

<http://www.calrecycle.ca.gov/SWFacilities/Enforcement/Inventory/default.aspx>.

If you have any questions regarding this matter, please contact Tadese Gebrehawariat of my staff at (916) 341-6402 or me at (916) 341-6429.

Sincerely,



Georgianne Turner, Branch Manager
MSW Facilities Operations and Evaluation Branch
Compliance Evaluation & Enforcement Division
Waste Compliance and Mitigation Program

* Please note that correspondence for staff of the Waste Compliance and Mitigation Program should continue to be sent to 1001 I Street, P.O. Box 4025, Sacramento, CA 95812. Correspondence specifically for the attention of the Director of CalRecycle should be sent to the address in the letterhead.

cc: Mr. William E. Prinz, Program Manager
City of San Diego, Development Services Department
Solid Waste Local Enforcement Agency
1010 2nd Avenue, Suite 600 MS606L
San Diego, California 92101-4998



City of San Diego, California



Profile

The sixth-largest city in the United States, San Diego is the southern-most major metropolitan area in California. The city lies 125 miles south of Los Angeles and 500 miles south of San Francisco. Current estimated population for the City of San Diego is 1,277,000.

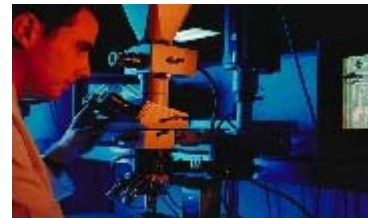
According to the San Diego Regional Chamber of Commerce Economic Research Bureau, projections for the 1999 economy indicate continued growth through 2000. The value of all goods and services generated in San Diego County are projected to be \$117.3 billion for 2001.



The “2020 Regionwide Forecast” released by the San Diego Association of Governments projects that between now and the year 2020 there will be 1 million additional residents, over 365,000 new homes, more than 310,000 new jobs, and a more ethnically diverse population.

The key industries within San Diego and its surrounding communities include: agriculture, defense, high technology, international trade, manufacturing, biotechnology, retail and tourism. Some notable facts...

- The city has more than 100,000 high technology workers in over 500 companies.
- San Diego has the third largest concentration of biotechnology industry in the United States.
- Telecommunications industry contributes more than \$5 billion annually to the local economy.
- San Diego is regularly ranked in the top-ten most popular destinations in the continental United States for international visitors.
- Ranks as the 10th largest agriculture producer in the nation.
- Trade is a major economic strength. The San Diego-Mexico border is the busiest in the world. Goods moving through San Diego customs district totaled \$23 billion in 1997.



The City of San Diego is a charter city operating under the Council-Manager form of government. The City Council is comprised of eight Council Members, elected by district, who serve overlapping four-year terms. The Mayor, elected at large, serves a four-year term. The Mayor and City Council, acting as the City's legislative and policy-making body, appoints the City Manager. The City Manager is the City's chief administrator responsible for implementing policies and programs adopted by the Mayor and City Council. The City Manager is responsible for the daily operations of the City and its' seven business centers. There are also five independent departments (City Auditor, City Clerk, Personnel and Retirement) and a City Attorney elected at large.

Fenceline

The Environmental Services Department is primarily responsible for management of the City's solid waste. The Department consists of over 500 employees organized into six divisions and has a total operations and capital budget of over \$100 million.

The Refuse Disposal Division has been selected as the fenceline. Due to its significant impact on the environment and heavy interface with regulators, Refuse Disposal presents a multi-faceted opportunity. The Division is made up of four major programs that include: Fee Collection, Miramar Landfill Operations and Maintenance, Inactive Site Operations and Maintenance and Biological Services Vegetation Restoration and Bird Control. The Division is overseen by a Deputy Director and consists of 94 employees with a budget of almost \$18.7 million (FY2000).

The Division is responsible for the City's only active municipally owned landfill. Miramar Landfill handles about 1.4 million tons of refuse annually and processes over 400,000 transactions per year.



Other responsibilities include:

- Administration of accounting and cash management for 17 franchised commercial haulers and \$45 million in collected revenues
- Maintenance of six closed municipal landfills, including active environmental restoration
- Operation of a greens diversion/composting operation
- Meeting regulatory requirements from numerous agencies

Key Drivers for Adopting an EMS

The City of San Diego identified several factors that led to their decision to design and implement an EMS. The city hoped to improve employees' participation in environmental performance as well as improving the city's overall environmental performance. In addition, the adoption of an EMS is consistent with the city's overall environmental principles and potentially provided San Diego with a competitive advantage on issues such as privatization. The availability of government assistant programs to aid in EMS development made the adoption of an EMS attractive for the City of San Diego. An EMS was also viewed as a valuable public relations tool.

Significant Aspects & Impacts

After development and review of the RDD's process maps the EMS Core Team conducted an environmental impact/aspect survey throughout the Division. The impacts/aspects that were identified as a result of this survey were then subjected to our significance criteria matrix producing a list of our significant aspects. Keeping in mind our business realities, twelve of the twenty-three significant aspects were selected for management through our Environmental Management Programs. Objectives and targets were set for managing these significant aspects and the EMPs were put in place. The remaining significant aspects are being controlled through Standard Operating Procedures until such time as they can be addressed through the EMP process.

Objectives & Targets 2002

1) Fuel Use Reduction

- Heavy Equipment
10% fuel use reduction in contracted heavy equipment.
- Stationary Equipment
Review, and amend where necessary, operating procedures and maintenance activity to obtain optimum fuel efficiency.
- Support Vehicles
5% fuel use reduction in Landfill Gas Management and Groundwater Monitoring programs.



2) Water Use Reduction – Potable/Reclaimed

- 25% Potable water use reduction
- Conduct Native Plant Nursery water use baseline study.
- Complete Native Plant Nursery water tension meter feasibility study.

3) Resource Conservation Effort (RCE)

- 10% paper use reduction throughout division.
- Complete landfill gas to energy feasibility study for Arizona Street landfill, select privatization vs. city operation, select firm if study data supports project.

4) Positive Impact (Continuous Improvement)

- Expand N.P.D.E.S. Best Management Practices (BMPs) program to include routine pump down of desilting pond, additional mulch and straw wattle application and installation of extra silt fencing.



- Expand Native Habitat Restoration Program awareness to all relevant city departments.
- Complete Ticket-less Transaction for Commercial Haulers Pilot Project and implement program with Waste Management of California. Implement program with as many other commercial haulers as possible.

Benefits/Results of Adopting an EMS

The City of San Diego has realized a number of benefits resulting from the adoption of an EMS into their Refuse Disposal Division. In addition to the long term benefits expected from our EMS, we have been pleasantly surprised by the enthusiasm shown by employees who have already changed the way they look at their jobs. Concurrent with the development of the EMS structure, they have suggested and implemented new work methods including: reductions in potable water use of up to 90% (31 M gallons/year); 50% reduction in water cost by using reclaimed water for 100% of operational water needs; potential for up to \$750 K in annual equipment operations cost savings as a result of looking at fuel use/emission reduction measures for our heavy equipment ops; 90% reduction in purge water generation in our groundwater monitoring program; utilization of stormwater from our sedimentation basin for dust control (up to 500K gallons per storm event) which concurrently minimizes stormwater impacts to the adjacent San Clemente Canyon stream. Other Benefits from their EMS implementation include:

- Increased environmental awareness as employees view processes and operations from an EMS perspective.
- Opportunity to identify environmental impacts throughout the division (both positive and negative).
- Ability to see more clearly the environmental consequences of our operation by focusing on the creation of flow charts and the determination of impacts and aspects.

- Operational cost savings realized by viewing our fenceline areas with an EMS perspective. These savings will be realized as the operational controls are implemented through our Environmental Management Programs.

Resources

The man-hours associated with the development of the City of San Diego EMS program.

Personnel	
Environmental Management Representatives	3877 hours
Core Team	725 hours
Partnership Team & Other	1337 hours
Consultants	152 hours
Total	6091 hours

The labor costs associated with the development of the City of San Diego EMS Program:

Direct Labor Costs	\$195,563.67
Consultant Costs	\$18,345.26

Next Steps

The Refuse Disposal Division has selected NSF-International Strategic Registrations, Ltd. to conduct the ISO 14001 registration audit through the spring/summer of 2002.

Costs/Savings (projected through 3/02)

The Refuse Disposal Division committed the resources of one full time position to fulfill the role of the EMR, hired two student interns to support the project, utilized a four member Process Team to provide project oversight, a five member Core Team for EMS development and implementation, and a twelve member Partnership Team to assist the Core Team in the field. Labor costs are projected to total approximately \$160 K, travel costs \$20 K, and consultant services \$25 K. ISO registration will total approximately \$ 16K.

On-going (annual) cost savings total approximately \$868,000.00 based on:

- \$706,000.00 Heavy equipment rate savings by shutting off equipment during breaks and lunch periods,
- \$80,000.00 diesel cost savings by shutting down heavy equipment during breaks and lunch periods,
- \$47,000.00 Plant protector/pots reuse program,
- \$29,000.00 water cost differential for using reclaimed water in place of potable water, and
- \$ 6,180.00 water meter charge savings (6" to 4" meter downsize).