186-188 of this report.) Certainly, the deplorable conditions touched upon by Ms. Arguelles with such emotion must be and definitely should be addressed by state and federal agencies. But, based on my view of the evidence, the causes do not lie with the Landfill.

SUMMARY OF TESTIMONY

The testimony given at the hearing is summarized in the following order: Applicant's witnesses on direct and on cross examination; Bureau's witnesses on direct and cross examination; City of Sunland Park's witnesses on direct and cross examination; Other Parties' witnesses on direct and cross examination; Applicant's rebuttal witnesses on direct and cross examination. Witnesses are listed in the order they testified, unless noted otherwise. Subparagraph A for each witness contains a *general summary, gist, or substance* of each witness' testimony. Subparagraph B, on the other hand, sets out the *highlights* of each witness' relevant testimony, in brief outline form.

Applicant's Witnesses

1. Mark Turnbough, Ph.D., Systems and Environmental Consultant

A. Dr. Turnbough related the history of the Sunland Park landfill, as well as his own experience in landfill permitting, site selection and related work. He described the zoning and annexation decisions made regarding the landfill, and other aspects of the relationship between the landfill and the community. Dr. Turnbough addressed the facility's history of compliance with applicable regulations, including siting criteria and inspections of the facility by numerous governmental entities. He described the waste streams to the landfill and

addressed several allegations of improper waste acceptance. Dr. Turnbough described aspects of the public outreach which was part of the permitting process. He detailed the socioeconomic and demographic characteristics of the community population, and the positive trends in local economic development. CRLC does not pose a hazard to public health or welfare, and is not a public nuisance. The Landfill does not pose a hazard to the environment or create a risk to property.

B.

1) In 1986, Dr. Turnbough consulted with Bureau of Land Management to evaluate 14 landfill leases in Dona Ana County, each of which contained an unregulated dump. BLM closed 13 of the dumps ahead of the new federal landfill regulations; the 14th dump site, at Sunland Park eventually became CRLF. Vol. 1, pp. 88-90.
2) Dumping at the Sunland Park site had been long-term and extensive, covering an area from the escarpment to the access road, leading to dumping on the community side of the railroad tracks. Vol. 1, pp. 93-94, 98-99.
3) Waste on the escarpment included stable waste from the Sunland Park Racetrack, a large amount of which ultimately spontaneously combusted and smoldered for weeks at a time as an underground fire. Vol. 1, p. 97.
4) In 1986 the site was home for an army of large rats and a lot of mosquitoes. The county was responsible for oversight of the dump in

1986 but was only able to provide a bulldozer on a monthly circuit. Vol. 1, pp. 103-104.

5) In 1986 a private operator consolidated property at and near the dump site, including private and leased property, for a total of 610 acres, of which 480 acres comprises the current Landfill. Vol. 1, pp. 106-107.

6) Subsequently the owner initiated discussion with Dona Ana County to request a special use permit for a sanitary landfill, and in April 1986 the planning and zoning commission approved that permit. The approval document noted that the operator would provide solid waste disposal services for the southern part of the county, that the Landfill was compatible with existing land uses and contemplated future uses. Vol. 1, pp. 170-171.

7) A year later the City of Sunland Park annexed the facility, noting that the zoning of the property was subject to the use of the property for sanitary landfill purposes only. The landfill is considered light industry. Vol. 1, p. 172, Vol. 8, p. 2803.

8) At the time of these agreements with the County and the City (1986-87) no complaints from the community were expressed to the Department's predecessor, although later a medical waste incinerator run by JOAB at the site prior to Waste Connections' involvement caused a lot of suspicion, controversy and opposition. Vol. 1, pp. 173-174, Vol. 4, pp. 1422-1427.

9) The first order of business for the private operator was a massive cleanup program. The cleanup operation included a reduction of slope steepness and re-contouring. Cleanup proceeded steadily over five years and included cleanup outside of the landfill property into the area between the railroad tracks and the Meadow Vista subdivision. Vol. 1, pp. 174-177.

10) Although in 1996 and 1987 New Mexico required only a short-form registration of a landfill, the private operator also considered whether the site was geographically strategically located and suitable for long term use, in addition to being consistent with historical land use. Vol. 1, pp. 177-180.

11) CRLF meets minimum federal and state standards, including New Mexico's additional siting criteria that the bottom of a landfill cell must not be within 100 feet of the seasonal high water table. Vol. 1, p. 101.

12) The Landfill was the first facility permitted under the new state solid waste management regulation in 1991. The process included a hearing and negotiations with the department and concerned citizens. The negotiations resulted in the facility's voluntary agreement to install a Subtitle D synthetic liner. Vol. 1, pp. 181-185.

13) Buffer zone requirements that appeared first in the federal solid waste regulations in 1993 required a minimum distance of 500 feet from residences, schools, hospitals and churches. At the time of initial

permit application, the facility was approximately 1300 feet from each of these. Vol. 1, pp. 188-190.

14) Over the years the facility and the community have gotten closer. The facility boundaries have not changed substantially, but the active residential development is growing toward the landfill boundary. Vol. 1, pp. 194-198.

15) New homes built in 2007 closest to the landfill boundary are some of the largest and most expensive houses in Sunland Park. The Valle Vista Subdivision is a reflection of the decision to build homes notwithstanding adjacent land use. Vol. 4, pp. 1262-1265, 1397, Vol. 7, pp. 2467-2468.

16) A lot of literature has focused on the impact of hazardous waste disposal facilities on the value of adjacent properties, but there is a big difference between a hazardous waste facility and an ordinary solid waste disposal facility, and the studies have drawn inconsistent conclusions about the effect of a solid waste facility on property values. Vol. 4, pp. 1400-1403.

17) The 2000 census shows the population in Sunland Park as 13,309 persons, a substantial increase from the 1990 census figure of 8,179 persons. Sunland Park is growing rapidly, more rapidly than Dona Ana County and the state of New Mexico. It is an economically emerging area, outperforming most comparable communities, primarily the result

of leadership and infrastructure developments. Vol. 1, pp. 204-205, Vol. 4, pp. 1395-1396, 1406.

18) Approximately 96 1/2 percent of the population is Hispanic or Latino, higher than the percentage for Dona Ana County (63.4%) and the state of New Mexico (42.1%). Sunland Park is also generally younger relative to the county and the state. Formal education attainment is lower, but the Gadsden school district is showing leadership, and there is a new branch campus of the community college. Vol. 1, pp. 206-209.

19) Although the 2000 census shows higher unemployment in Sunland Park than in Dona Ana County, there is higher unemployment in the county than in the state and Dr. Turnbough anticipates an uptick based on more recent activity. Vol. 1, pp. 209-210.

20) The new facility entered into a host agreement with the City in April 2001, tracking federal legislation that dealt with interstate transportation of solid waste. The compensation in the agreement was not compensation for increased risk, but to develop status as a good corporate citizen and to integrate with the community to plan future activity. Vol. 1, pp. 213-214.

21) The host fee negotiated was 3% of the gross revenue on a monthly basis in addition to in-kind services rendered such that payments to the City effectively totaled 7.7% of gross revenues. These contributions were voluntary. Vol. 1, pp. 217-219, pp. 221-222, Vol. 4, p. 1408.

22) From the time this facility was permitted in 1991, the Landfill has not knowingly taken any prohibited item, and has been vigilant about not accepting medical waste or hazardous waste they are not permitted to accept. When suspect waste has been received, they have staged it off of the working face and physically inspected it. If acceptance of the waste would violate the permit, it has been turned back to the generator and reported to the Environment Department. Vol. 1, pp. 222-230.

23) In one instance in which an internal audit by Phelps Dodge revealed they had sent unacceptable waste that was already buried, an independent third-party performed a risk assessment on fate and transport of the material. They concluded that there was no risk of material migration, and CRLF continues to monitor the leachate. Vol. 1, pp. 231-234.

24) In 1993 EPA Region 6 conducted an extensive multimedia investigation of the facility and a reconnaissance of the community. Sunland Park citizens had expressed concern to EPA about medical and hazardous waste disposal. EPA collected soil and water samples in the disposal area and hydrocarbon treatment area. They also took air-quality samples. EPA found no evidence of any hazardous waste contamination at the landfill. Vol. 1, pp. 235-237.

25) The first major health reconnaissance study conducted in Sunland Park was by the Agency for Toxic Substances and Disease Registry

(ATSDR), part of the Center for Disease Control. The agency did confirmatory sampling and found no apparent linkage between community health conditions and the landfill, and that the landfill was properly operated. Vol. 1, pp. 239-240.

26) Later the New Mexico Department of Health conducted a study at the request of the Environment Department. The health reconnaissance was much more detailed than the ATSDR's, and included Phase 1 physical exams for individuals who had expressed concern. The study found a fairly typical range of physical maladies common to lower socioeconomic communities with poor access to public health care and few resources to travel to health delivery systems outside of the area. Vol. 1, pp. 240-241.

27) Additional inspections have also been performed at the Landfill. In response to citizens' concerns, the Department conducted an intensive campaign of inspections. From 1992 to 1996, there were 46 inspections by Department inspectors. From 1997 to 2007 there were an additional 25 inspections. Most of these inspections were not announced. Vol. 1, pp. 249-251, Vol. 7, pp. 2430-2432.

28) CRLF has never been issued a citation or notice of violation. Vol. 1, p. 251.

29) The Application complies with the Department's regulations. CRLC does not pose a hazard to public health or welfare, and is not a public

nuisance. The Landfill does not pose a hazard to the environment or create a risk to property. Vol. 1, pp. 252-253.

30) There are continuous discussions about the operating parameters at the Landfill, including the hours of operation. The dilemma is that those collecting solid waste in the commercial market area have to get in and out before traffic congestion becomes such the waste cannot efficiently be moved. The Landfill is considering different dispatch configurations to limit the number of trucks idling at the gate, based on concerns about vehicle noise. Vol. 4, pp. 1258-1261.

31) From the nearest point of CRLF boundary to the perimeter area of Desert View Elementary School is 1300 feet. Vol. 4, pp. 1271.

32) Historically, the Landfill has tried to keep trucks out of neighborhoods and school zones. Traffic routing has included considerations of road conditions, distance and traffic loading. A potential access road parallel to the railroad tracks was abandoned because of negotiation difficulties with Union Pacific, a route through the Verde property is cost prohibitive in construction and fuel, and a potential route through the Riverside Elementary School zone would present a safety issue and increase the distance of the haul route and diesel fuel use significantly. Vol. 4, pp. 1330-1334, Vol. 5, pp. 1722-1723, 1728-1730.

33) The City of Sunland Park is no longer disposing its solid waste at the Landfill, and has pulled out of the host agreement; CRLC does accept waste from residents once a month. Vol. 4, pp. 1409-1413.

34) The Application was not written in Spanish because its primary purpose is to provide the Department with the information required for its evaluation of the technical requirements, and Spanish is not required. When the Landfill published the Community Impact Assessment (CIA), which includes demography and socioeconomic status, it contracted with a certified translator and made it available in Spanish at several locations in the community. Vol. 5, pp. 1820-1821.

35) CRLC follows and exceeds the design and operational standards developed by the EPA to protect human health and the environment; Subtitle D criteria were established to ensure that "no reasonable probability of adverse effects on health or the environment will result from solid waste disposal facilities or practices." Vol. 5, pp. 1838-1839, Vol. 7, pp. 2427-2430.

36) Waste going to CRLF comes from El Paso, North Chihuahua, along the frontier, and the industrial parks, from southern Dona Ana County. The waste stream is top-heavy in terms of commercial quantities; most of the El Paso residential waste ends up at the Clint landfill. The Landfill does not accept any offal, ash or infectious waste. Vol. 7, pp. 2436-2437, Vol. 8, p. 2800.

37) 20 NMAC 9.3.18 .A provides for the review of site suitability and the demonstration that an applicant has knowledge and skill to properly operate a facility. Meeting these standards indicates that an adverse effect or hazard to public health will not be created, but the voice of the

community must also be considered. If somebody has a concern that isn't addressed by one of these technical requirements, that concern must be investigated. A concern about a nuisance can be addressed with a permit condition while a valid concern about a hazard can be the basis for denial of a permit application, unless it can be addressed by a condition. Vol. 7, pp. 2442-2449, Vol. 8, pp. 2986-2987.

38) The Department pursued meaningful community involvement and held numerous meetings with a community multi-Bureau team. The Department also delayed deeming the Application complete as it worked to address community concerns. Vol. 7, pp. 2449-2453.

39) The Applicant also worked to ensure meaningful involvement of the community and developed study tasks and scopes to evaluate community concerns, focusing on traffic, noise, odors and air. CRLC also hired a public relations firm to assure community awareness of its work and made community outreach efforts. Vol. 7, pp. 2454-2456.

40) Dr. Turnbough has worked in other border communities; Sunland Park is much better off than nearly all of the communities he's worked with in the lower valley of El Paso County and the communities in the lower Rio Grande Valley; he sees clinics, organized civic life, more economic viability, more state and federal money made available, paved streets and other infrastructure, and effective advocacy on behalf of the community. Vol. 7, pp. 2462-2465.

41) CRLF has a slightly positive influence on the local economy; it hires people from the Sunland Park area. Vol. 7, p. 2466.

42) The Verde group has taken over the Santa Teresa industrial park project, master planned the whole area, and plan to develop in Sunland Park as the institutional center of their concept. The property immediately west and north of the Landfill is scheduled for residential and commercial development; other planned development beyond the existing race track, casino and amusement park includes a dinosaur museum and an IMAX theater. Vol. 7, pp. 2468-2474.

43) The Verde Group Santa Teresa project manager and the operator of the casino have both indicated that they value the Landfill and require a relatively close source of waste disposal. The Verde project manager also stated that the Landfill would eventually need to be relocated in order to viably develop the surrounding area, but he was talking about a long time horizon. Considering the investment that has been made, the value of the remaining airspace, and the capacity of the facility, the cost of finding and characterizing a new site within the same relative distance of the market area would approach half a billion dollars. Vol. 7, pp. 2477-2478, Vol. 9, pp. 3247-3249.

44) Regarding concerns that Asarco waste has been buried at the Landfill, available documentation indicates that only non-hazardous waste has come to CRLF. Vol. 7, pp. 2479-2481.

45) The Department received an anonymous complaint that medical waste was coming into the Landfill and a team came down to go through every bag and every truck for about a week. They found a small amount of medical waste generated by household uses and some documentation linking waste to practically all of the hospitals in the area, waste that had been disposed of in white bags rather than red bags. The waste was set aside, not buried, and the Landfill informed generators they would stop taking their waste if they could not assure future compliance. CRLF has not accepted waste from these hospitals since August 2006. Vol. 7, pp. 2481-2483, Vol. 8, pp. 2800-2802.

46) A claim that medical waste had come in from Mexico was investigated; it turned out to be food quality dyes. Vol. 7, p. 2484.

47) Asbestos can pose a danger to workers and CRLF isn't permitted to accept it. There was an attempt at the El Paso power plant demolition project to plant asbestos in one of the loads, but the landfill was notified and in turn notified THE DEPARTMENT, double bagged the waste and returned it to El Paso Electric, which was cited for a violation. Vol. 7, pp. 2485-2487.

48) The complaint that medical waste has been burned at the Landfill is urban legend; the incinerator was dismantled in 1993 and no medical wastes have been burned since. Vol. 7, pp. 2487-2488.

49) There have been complaints about odors and the Landfill has tried to identify the sources of those odors. Many of the complaints are about

odors at night, but CRLF does not accept waste at night and the waste already accepted has been covered with soil by 4 p.m. Dr. Turnbough has detected odors from the stables and the sludge drying beds at the City's wastewater treatment plant. Vol. 7, pp. 2488-2491.

50) There is no nexus between Asarco's and the Landfill's operations; investigations on that issue were conducted by EPA, the Department, the Agency for Toxic Substances and Disease Registry and the New Mexico Department of Health. EPA conducted a multimedia inspection of CRLF in 1993 and found no lead contamination; Asarco was still operating then. Vol. 7, pp. 2492-2493.

51) Dr. Turnbough has never found anything related to CRLF causing hazards to public health, welfare or the environment, or undue risk to property. Vol. 7, p. 2506.

52) In March 2007, Dr. Turnbough went to review preliminary conceptual plans produced by the Polyzoides Group, and heard an economist, Mr. Berg, state that the Landfill was a hazard to the community and would preclude implementation of the City of Sunland Park's Master Plan. Dr. Turnbough approached Mr. Berg to request the basis for his statements, but Mr. Berg ended the conversation abruptly after admitting that he wasn't familiar with New Mexico's regulations, hadn't been at the site and didn't have factual information about soil types there. Dr. Turnbough denied threatening Mr. Berg physically or with a lawsuit. Vol. 14, pp. 5734-5744.

2. Carol Condie, Ph.D., Anthropologist and Principal Archeological Investigator

A. Dr. Condie described her qualifications and the archaeological survey, testing and excavation she performed at CRLF in 2005-2006. Dr. Condie also described other archeological surveys at the site, and addressed potential impact on 27 other sites up to one half mile from the Landfill boundaries. There are no sites within the boundaries of the Landfill that qualify as being archaeologically or historically significant.

B.

1) Dr. Condie performed an archaeological survey at the Landfill in 2005, and archaeological testing and excavation in 2006. Vol. 2, p. 406.
2) A prior archaeological study of the Landfill property done in 1988 when it was BLM land had identified two archaeological sites, one of which was deemed in 1994 by the Office of Contract Archeology to be too badly disturbed to conduct testing or excavation. Vol. 2, pp. 407-409, 488.
3) Dr. Condie's investigation at the other site, a lithic scatter of chipped stone 30 feet from a bone scatter, included 47 one-meter by one-meter test pits, but did not reveal human involvement or anything of cultural significance. Vol. 2, pp. 410-415.
4) The state historic preservation officer (SHPO) concurred with Dr. Condie's conclusion that the tested site was not significant or eligible for the National Register of Historic Places, that no additional work

should be done at the site, and that the Landfill should proceed. Vol. 2, pp. 415-416.

5) Dr. Condie performed her work at the Landfill as a subcontractor to Gordon Environmental (not METRIC Corporation). No one from the Landfill directed her work or performed any of the testing. Vol. 2, pp. 469-70, 475-477.

6) There are no sites within the boundaries of the Landfill that qualify as being archaeologically or historically significant. Vol. 2, p. 481.

7) Dr. Condie's report includes a reference to 27 other sites within an area that is one third to one half mile from the Landfill boundaries, some of which were lithic scatters and some of which included pot shards, but none of the 27 sites is near enough to be affected by activities at the Landfill. Vol. 2, pp. 491-496.

3. Joe King, Ph.D., CREC Former General Manager and CEO

A. Dr. King related his qualifications and work history. He described how waste enters the Landfill, how it is inspected, and how the Landfill has addressed complaints of odors. Dr. King described the acceptance of special waste, employee training and certification and other operational activities.

B.

1) Although waste now enters in trash vehicles from McNutt onto CRLF's entrance road, the entrance used to continue to Cristo Rey Road; as part of its host agreement with the City of Sunland Park, in 2001 CRLF

moved the access road further away from the community and toward a natural lift with a high dirt profile. Vol. 2, pp. 537-539.

2) Signage for trucks begins at McNutt and continues to the Landfill gatehouse, which is attended 24 hours a day, either by a gatehouse operator or a security guard. Vol. 2, pp. 540-541.

3) All waste loads coming into the Landfill receive a gatehouse receipt, reflecting the generator, type of waste, rate charged, volume, driver's signature, time of entry and exit and the name of the scale master. Vol. 2, pp. 541-543.

4) Every employee at CRLF is taught waste screening, which includes inspections done at the gatehouse, in addition to a video camera system that records all vehicles entering from multiple angles. Vol. 2, pp. 543-544.

5) CRLF paved the road from McNutt to the entrance in 2004 -- 05. After leaving the gatehouse, the roads are dirt roads to the active portion of the Landfill, or tipping area, which has an upper lift and a lower lift to separate commercial vehicles from residents as a safety measure. Vol. 2, pp. 545-546.

6) The tipping area or working face is less than an acre, usually 150 to 300 feet; it is kept small and covered every day with 6 inches of soil in order to manage odors, prevent fires, scavenging and vectors, and to help control blowing litter. Vol. 2, pp. 546-548.

7) All Landfill staff have been ordered to identify odorous loads coming into the Landfill so that they can be immediately covered to eliminate the odor; the loads with the strongest odor potential contain sludge from Sunland Park, twice a week. Vol. 2, pp. 549-550.

8) In addition to the initial inspection of all waste loads at the gate, there are more thorough daily random inspections of commercial vehicles which include a report, and may include action if it is a noncompliant load. Vol. 2, pp. 554-557.

9) CRLF is not permitted to take hazardous waste of any kind, either listed or characteristic. Vol. 2, pp. 558-561.

10) CRLF is permitted to take three types of special waste: wastewater treatment plant sludge, petroleum contaminated soils, and industrial solid waste, i.e. waste generated through an industrial process. Vol. 2, pp. 561-562.

11) Very little sludge is accepted; it comes from the City of Sunland Park, from the City of Hatch, and occasionally from Fort Bliss. CRLF received sludge from Holloman Air Force Base once a year between 2000 and 2005. Sludge is dried prior to delivery to the Landfill, where it must pass a paint filter test to show that it is not liquid. Vol. 2, pp. 563-567, Vol. 5, pp. 1807, 1809.

12) CRLF is permitted to accept petroleum-contaminated soils and to land-farm them until they have been treated, but since June 2002 chooses to take only soils which already meet treatment standards, and have

become ordinary solid waste. Vol. 2, pp. 568-569, Vol. 4, pp. 1288-1289, Vol. 5, p. 1804.

13) The majority of the industrial waste coming to the Landfill is from maquiladoras, also called twin plants. Examples of maquiladora waste include fabric, rubber and paper scrap, all of which arrives in closed containers during the day. Vol. 2, pp. 569-572.

14) CRLF does not accept medical waste or liquid waste or waste in drums. Medical waste disposed of as normal trash by the hospitals has been intercepted, isolated, reported to the Department and the generator, and typically manifested and removed by a medical waste company like Stericycle. Vol. 2, pp. 573-574, Vol. 4, pp. 1290-1291.

15) Every truckload of special waste is inspected regardless of how many arrive each day, and all special waste is accompanied by documentation including manifests and goes through multiple screening levels prior to coming to the Landfill, including proof that the waste is not hazardous. Vol. 2, pp. 577-580.

16) The Landfill is seeking to accept fewer special wastes than it has in the past and has two special waste management areas: an area where maquiladora trailers are temporarily stored for inspection and a petroleum-contaminated soil area. Vol. 2, pp. 581-583.

17) CRLF meets all regulatory requirements for the handling of special wastes. Vol. 2, p. 583.

18) The Landfill employs 32 people and includes several on-site certified Landfill operators, although only one is required and must merely be available, not on site. Vol. 2, pp. 584, 595.

19) The regulations require that all industrial waste be treated as special waste based on the fear that the industrial process is more likely than a household to contaminate a waste stream, and therefore warrants greater care and scrutiny. Vol. 2, pp. 586-588, 594.

20) Every CRLF employee goes through an intensive waste screening program annually in order to reduce the potential for receipt of unauthorized waste, and to be taught the procedures to be followed in the event a suspicious waste stream is identified. Vol. 2, pp. 596-597.

21) Nonconforming loads of maquila waste are found once or twice a year. Vol. 4, p. 1286.

22) CRLF has received several awards for excellence in solid waste management and provides support to the local community, financially and with in-kind services, in multiple ways. Vol. 2, pp. 598-603.

23) The Landfill takes municipal and commercial waste from El Paso, and Waste Connections owns El Paso Disposal Company. Over the years the disposal company has hauled some industrial waste but today does not haul any maquiladora waste. Vol. 4, pp. 1278, 1280-1281.

24) The Landfill has never been on fire, although Dr. King has seen smoke from a smoldering underground fire on land that does not belong to the

Landfill. Smoldering trash from the old landfill disposal area was dug out and moved to a lined cell. Vol. 4, pp. 1292-1293.

25) Operating conditions are varied in response to high wind; the Landfill closes if visibility becomes a health or safety risk, and clients are limited on very windy days in order to prevent blowing litter. Vol. 4, p. 1293.

26) Other landfills include the Corallitos Landfill in Las Cruces, approximately 45 miles from Sunland Park, and Clint Landfill in the City of El Paso, approximately 37 miles from Sunland Park. Vol. 5, pp. 1739-1740.

27) There have been attempts to dispose of asbestos at CRLF, but the Landfill dealt with it within the regulations, and the asbestos was sent either to Keers Environmental, 90 miles away, or Lincoln-Otero County Landfill, 45 miles away; both are authorized to accept it. Vol. 5, pp. 1811-1812.

4. Thomas Reilly, CREC Western Regional Engineering Manager

A. Mr. Reilly described operational activities at the Landfill, monitoring and reporting, corporate compliance history and financial assurance. The Application for permit renewal complies with the New Mexico Solid Waste Management Regulations.

B.

1) At the Landfill working face a compactor tears the waste and compacts the refuse while a scraper hauls dirt from a future refuse cell to cover the face with soil, to control odors, vectors and litter. Vol. 2, pp. 611-612.
2) A landfill is constructed in lifts 15 to 20 feet high, with an intermediate cover of 6 inches of soil and a final daily cover of another 6 inches of soil. The community will see the Landfill operation as a new berm is being constructed but most of the activity is done behind the berm. Vol. 2, pp. 613-614.
3) A liner is part of a sanitary landfill along with a layer of sand or gravel and the liner is sloped so that leachate moves to a sump and is pumped out. Groundwater is monitored beneath the Landfill, up-gradient and down-gradient. Vol. 2, pp. 615-616.
4) Landfill gases generated during decomposition of waste are collected in 52 gas collection wells and destroyed in a flare. Vol. 2, pp. 615-618.
5) The facility submits an annual report to the Environment Department which includes the inspection and screening plan and all environmental monitoring results. Last year's report reflects no indication that the site impacts groundwater or any exceedances of Landfill gases. Vol. 2, pp. 619-621.
6) CRLF has a Plan of Operation which identifies design and operation practices used to protect the environment and public health and safety

and welfare of the surrounding community. This plan includes discussion of compaction, cover, dust control, protection from wind, litter control, vector and odor control, access to the facility and security, specialized equipment, traffic and transportation, interruption in service, and emergency situations. Vol. 2, pp. 622-637.

7) CRLF's regulatory compliance history is excellent; they have never been cited for a violation, been found to be in willful disregard of environmental laws, or had a permit revoked. Waste Connections' regulatory compliance history includes notices of violation, but is very good. All required disclosure forms were submitted. Vol. 2, pp. 637-640.

8) Financial assurance for CRLF is provided by Waste Connections through performance bonds from a credit-worthy entity. The bonds are based on cost estimates for closure, post-closure and environmental assessments and are adjusted annually for inflation. Vol. 2, pp. 641-642.

9) The Application for permit renewal complies with the New Mexico Solid Waste Management Regulations. Vol. 2, p. 643.

5. Ian Keith Gordon, Principal Engineer

A. Mr. Gordon described his work history, the major components of the Application, and the regulatory requirements to renew a landfill permit. He also

discussed the requested permit modification, the location of the flare, leachate generation and the contours of the anticipated final landfill elevation.

B.

1) The Application includes Landfill management plans, engineering calculations, siting compliance and land use information, subsurface investigation results and a new groundwater monitoring plan, as well as administrative documents and the required fee, and was filed March 6, 2006, one year prior to the expiration of the current permit. Vol. 3, pp. 759-762.
2) Camino Real is seeking both to renew and to modify its permit; the modification reflects only an extension into a new area of their environmental monitoring systems. Vol. 3, pp. 765-766.
3) Public notice was given of the Application in English and in Spanish by mailing, posting and publication to all required entities, to potentially interested entities and to concerned citizens, beyond what was required. Camino Real also provided copies of the Application for review in seven publicly accessible locations. Vol. 3, pp. 767-770.
4) Between the time of submittal and the time the Application was deemed substantially complete by the Solid Waste Bureau in October 2007, several meetings were held to discuss the Application, including the drilling and testing program, and additional information was supplied in response to formal requests. Vol. 3, pp. 771-773.

5) A landfill cell is a subcomponent of a unit; typically each cell has its own leachate collection system and liner system, and ranges in size from five to 20 acres. Vol. 3, pp. 774-775.

6) An intermediate grading plan is required in order to properly manage the storm water that sheds from the Landfill as it's being developed, and a soil quantity analysis is performed to assure enough soil for ultimate capacity and cover. Vol. 3, pp. 778-780.

7) The Landfill meets all 18 siting requirements in the solid waste management regulations, including those designed to protect surface and ground water, aircraft safety, and threatened and endangered species. Vol. 3, pp. 781-785.

8) Engineering calculations prepared for the Application included volumetric, settlement, slope stability analysis, compatibility, pipe loading, drainage, and the demonstration using the HELP model required to show that the liner will function properly. Vol. 3, pp. 786-787.

9) The four-layered liner system has proven effective at managing leachate and containing fluids within individual cells and units. Vol. 3, pp. 788-791.

10) Management plans developed for the Landfill include a Plan of Operations, Contingency Plan, Construction Quality Assurance Plan, Closure/Post Closure Plan, Landfill Gas Management Plan, Leachate Management Plan, Special Waste Disposal Management Plans,

Transportation Plan and Storm Water Management Plan. Vol. 3, pp. 794-799.

11) The regulations require the Landfill to manage at least a 25-year/24-hour storm event. In August 2006 the Landfill withstood a storm event in excess of a 500-year storm event; all storm water was retained within the storm-water control systems and not released offsite. Vol. 3, pp. 799-801.

12) The proposed modification of the Landfill permit does not involve a lateral expansion; Phase 3 was identified for future development in both previous application proceedings. Vol. 3, pp. 806-807.

13) Neither the Landfill nor the renewal of its permit poses a hazard to public health, welfare or the environment. Vol. 3, pp. 807-808.

14) The Landfill has no plans to expand to the north in future permit cycles; there is a grade break which would make it impractical. Vol. 4, p. 1266.

15) Landfills near affluent areas in the state of New Mexico include Sandoval County, Rio Rancho and the City of Roswell. There is a $1.4 million home adjacent to Sandoval County Landfill; the nearest residence to the Roswell Landfill is more rural, approximately 800 feet distant; and the nearest residence to the Rio Rancho Landfill is 500 feet from the disposal area and much closer to the property line. Vol. 4, pp. 1415-1419.

16) The surfactant sprayed for dust control cannot be smelled, even when hit with rainfall. Vol. 5, pp. 1629.

17) The flare is behind a berm on the side of the Landfill property near a residential area for several reasons; there are no safety issues with the location and no circumstance with the flare or blower unit would represent any risk or danger to the community. Vol. 5, pp. 1658-1663.

18) The anaerobic stage of waste decomposition is not necessarily connected to the production of leachate. Typically peak generation for leachate occurs 15 years after the placement of the waste. At some point there is no measurable gas being produced by the waste and if at 30 years there is still a measurable quantity of Landfill gas, the gas collection control system would continue to be operated. Vol. 5, pp. 1668, 1680.

19) Studies of projected longevity of the HDPE liner show a half-life of 400 years, and there is a secondary clay liner underneath. Vol. 5, pp. 1684-1685.

20) At the end of this 10-year permit renewal, when Unit 3 is completed, the mound will be 60 feet higher than the existing elevation of the surrounding terrain and further back than it is now, or 80 feet above the highest current point. Vol. 5, pp. 1923-19.

6. David Bleakly, Botanical and Biological Surveyor

A. Mr. Bleakly described his work experience, and his biological survey of Unit 3 at the Landfill, searching for wetlands and critical habitat.

B.

1) Mr. Bleakly's biological and botanical survey of Unit 3 of the Landfill revealed no wetlands, no hydrophytic plants, and no indications of hydric soil or wetland hydrology. There are no water courses and no wetlands on the site. Vol. 3, pp. 819-822.
2) Mr. Bleakly found no threatened or endangered plant species or threatened or endangered animals within the site area. Vol. 3, pp. 824-826.
3) Mr. Bleakly's conclusions were reported and reviewed at the Department of Game and Fish and the Fish and Wildlife Service; the Department of Game and Fish granted a letter of clearance. Vol. 3, pp. 828-829.
4) CRLF will not have a negative impact on any listed or rare species of animals or plants, and it is not within a watercourse, a wetland or a floodplain. Vol. 3, p. 829.
5) Mr. Bleakly was paid approximately $2000 for this work. Vol. 3, p. 836.
6) Mr. Bleakly's conclusions are consistent with those reached in another survey performed 10 years ago that no critical habitat would be affected by the operation of the Landfill and that it is unlikely for

any threatened or endangered species to be on the site. Vol. 3, p. 880.

7. Larry Coons, Professional Engineer and Hydrogeologist

A. Mr. Coons described his work history, regional and site geology and hydrogeology. He also discussed potential faulting beneath the Landfill.

B.

1) Mr. Coons' assessment of the geology and hydrogeology of the Landfill area, studied numerous times between 1988 and 2006, shows that the site provides an excellent natural setting for a municipal landfill. Vol. 3, pp. 894, 905.
2) Regional groundwater flow in the basin is from the northwest toward the southeast. Vol. 3, p. 903.
3) The most recent site characterization program undertaken shows site geology to be a sequence of sediments consisting predominantly of sands and silt sands with interbeds of siltstones, mud, and mudstones. Vol. 3, pp. 922-923.
4) The uppermost aquifer beneath the Landfill site is a fine-grained, weakly consolidated silt sandstone. Vol. 3, p. 926.
5) All Landfill cells have been designed such that the minimum separation distance between the base of the cell and ground water is 160-165 feet; depth to the uppermost aquifer is generally 140-400 feet. Vol. 3, p. 928.

6) All siting criteria relating to the hydrogeology of the site are met, including seismic impact zone and slope stability. Vol. 3, pp. 930-936.

7) The Landfill and permit renewal do not pose a hazard to the uppermost aquifer, to public health or welfare or the environment. Vol. 3, pp. 952-953.

8) No information, including numerous borings and wells at the site, indicate any displacement or faulting beneath the Landfill. Vol. 5, pp. 1794, 1798.

8. Michael Crepeau, Manager for Environmental Monitoring and Compliance Reporting

A. Mr. Crepeau described his experience and the monitoring and compliance reporting activities at the Landfill, including controls for dust and other air contaminants, and controls for water pollution, leachate and landfill gasses.

B.

1) The Landfill has taken several measures to control fugitive dust: it limits vehicle speed on site to 15 mph, applies 96,000 gallons of water daily to landfill roads and other areas subject to wind erosion, applies 5,000 gallons of chemical surfactants quarterly to form a wind resistant crust, and limits site access to a single point of ingress and egress. Additionally, the Landfill has installed wind fencing, and

applied hydro seeding, and the natural topography helps mitigate wind erosion effects. Vol. 3, pp. 956-958.

2) Camino Real has a Title V air quality permit, and is required to meet state and federal air quality standards for fugitive dust, sulfur dioxide, oxides of nitrogen and carbon monoxide. The Title V permit imposes numerous monitoring and reporting requirements. Vol. 3, pp. 958-960, 962-963.

3) The Landfill's Storm Water Pollution Prevention Plan was developed to prevent the discharge of pollutants to receiving waters of the United States by identifying potential sources of pollution and best management practices to prevent that pollution from entering surface water. Vol. 3, pp. 965-966.

4) The Landfill's Leachate Management Plan currently provides for leachate to be pumped from a manhole to a tanker truck, taken to the active fill face and sprayed on the waste mass under the daily cover. In the Application, the Landfill is proposing additional alternatives, which include disposal at a publicly owned treatment work or liquid processing facility, and the use of dilute leachate for dust control. CRLF actively samples and analyzes its leachate, although it is not required to. Vol. 3, pp. 967-969.

5) The Landfill's gas collection and control system consists of 52 active landfill gas extraction wells; they are also proposing a gas recovery

system such that methane could be put to beneficial use. Vol. 3, pp. 970-976.

6) The Landfill's gas monitoring shows that since the issuance of the 1997 permanent methane concentrations have been below regulatory requirements, and the Landfill is proposing to reduce monitoring frequency for the permanent probes, as well as the elimination of annual borehole probe monitoring. Ten new perimeter probes are planned for the site along the southern and western boundaries. Vol. 3, pp. 976-980.

7) The current operation of CRLF is in full compliance with federal and state regulations pertaining to landfill gas. Vol. 3, p. 983.

8) The Landfill's ground water monitoring program currently consists of semiannual sample collection and analysis of groundwater samples from each of the site's six monitoring wells. Each of the wells is screened in the uppermost water bearing unit at the site and is capable of detecting a potential release from the Landfill. Vol. 3, pp. 984, 990-991.

9) Two new monitoring wells are proposed as the waste filling sequence progresses into Unit 3. Vol. 3, pp. 994-995.

10) Landfill operations have had no impact on groundwater quality beneath CRLF. Vol. 3, p. 999.

11) The Landfill's updated Closure/Post Closure Plan includes cost estimates developed for the site, maintenance of control systems and

groundwater assessments, and fully complies with the solid waste management regulations. Vol. 3, pp. 1000-1006.

12) CRLF and permit renewal do not pose a hazard to public health or welfare, property or the environment. Vol. 3, pp. 1006-1007.

13) The flare has demonstrated 98% destruction efficiency of landfill gas. As required, emissions from the flare have been broken down into three primary criteria pollutants: sulfur dioxide, nitrogen dioxide and carbon monoxide, and all of these emissions meet standards. Vol. 5, pp. 163-1641.

14) The flare is located behind the berm for three reasons: condensate management, site security and proximity to active landfill operations. Vol. 5, pp. 1658-1659.

15) The proposed semiannual leachate analysis incorporates a list of more than 50 organic and 44 inorganic parameters specified for ground water monitoring; the Landfill also collects and analyzes samples for biochemical oxygen demand, chemical oxygen demand and phosphates. Vol. 5, p. 1664.

16) CRLF produces approximately 20 gallons of leachate per day, and pumps approximately 1200 gallons of leachate quarterly from the sump system. Vol. 5, pp. 1802-1803.

9. Nevin Harwick, Traffic Operations Engineer

A. Mr. Harwick described his background and his role in this project: to do a traffic impact analysis, to review existing conditions and projected conditions at the end of the permit period, and to conduct a safety assessment and speed study of the vehicles on McNutt Road.

B.

1) McNutt is a state highway and arterial roadway, as is Racetrack Drive and Country Club Drive; arterial roadways are the most functional classification and should be designed to support heavy trucks. Vol. 3, pp. 1015-1017.
2) Estimated average daily traffic on roadways of concern show a significant reduction of traffic on Racetrack Drive because of the addition of Sunland Park Drive. The late afternoon peak has the greatest volume of traffic, but does not reflect a lot of solid waste vehicles. During the morning peak there are a moderate number of trucks, increasing near Camino Real Blvd., but the overall percentages are not extremely high. Vol. 3, pp. 1023-1026.
3) Not everyone turning off of McNutt onto Camino Real Boulevard is going to the Landfill; of over 1000 vehicles, 577 vehicles were landfill related, and on McNutt itself 3% of the total traffic is landfill-related. Vol. 3, p. 1027.
4) Levels of service are graded A through F, ranging from almost no delay whatsoever to potential for excessive delay at an intersection.

For each road intersecting McNutt, at the a.m. peak, level of service is acceptable in 2007 and projected in 2017 for each of the intersections except Camino Real Blvd, which will degrade to level of service F based on background growth of the population. Vol. 3, pp. 1033-1038.

5) The projection for 2017 does not suggest that traffic is going to come to a stop; while the volume will increase significantly, there is excess capacity now at the Landfill intersection and each of the other existing intersections. The grade level for CRLF will be similar to each of the side streets feeding into McNutt in this area. Vol. 3, pp. 1039-1040.
6) Mr. Harwick's traffic survey examined safety issues and in particular the severity index, or percentage of crashes resulting in injury or fatality. The severity index for the 7-mile stretch of McNutt Road near the Landfill was 38, Doña Ana County has a severity index of 37, the state of New Mexico has a severity index of 36, and the community of Sunland Park has a severity index of 45. Heavy vehicles are underrepresented in the vehicle crashes. McNutt Road was the only road in Sunland Park with a concentration of accidents. Vol. 3, pp. 1046-1051, Vol. 5, pp. 1609, 2324-2325.
7) Landfill trucks do not compromise vehicular safety in Sunland Park, and the roads surveyed are suitable for landfill traffic. They did not note operational or safety deficiencies in traffic patterns. Vol. 3, pp. 1052-1053.

8) Although concerns were expressed at public meetings in 2005 or 2006 about landfill vehicles cutting through on 5th St to get to Camino Real Blvd., McNutt Road was being widened at the time and drivers were seeking alternate routes of travel. The construction project has since ended; he nevertheless suggested that the Landfill erect signage to direct drivers away from the neighborhoods and off of 5th Street. Vol. 3, pp. 1053-1055.

9) Traffic in Sunland Park does not pose a hazard to public health, welfare or the environment, or pose a risk to property. Vol. 3, p. 1056.

10. Bill Tillar, Air Quality and Transportation Noise Specialist

A. Mr. Tillar described his work background and his role: he performed a noise assessment as part of a Community Impact Assessment for the Application, using a sound level meter or dosimeter to monitor outdoor sound levels within the community over a period of time.

B.

1) Mr. Tillar followed the guidelines for community noise exposures of the Housing and Urban Development (HUD) agency because they require both a daytime and nighttime noise assessment. Vol. 3, pp. 1076-1078.

2) The Sunland Park assessment reflects day/night weighted average levels range from 53.9 dB to 58 dB, less than the 65 dB threshold

impact under the HUD noise guidelines, and within the acceptable category. Vol. 3, p. 1082.

3) The highest readings were at the Desert View Elementary School, at 68.4 dB, although the school is furthest from the route of landfill traffic; the primary source of noise at that location is children. Vol. 3, pp. 1085-1086.

4) The greatest source of noise in Sunland Park are the trains from the Union Pacific Railroad, and in particular trains idling along residential areas near Camino Real Blvd. Mr. Tillar observed trains passing at least every 15 minutes throughout the day. Train traffic was less but continued throughout nighttime hours as well. Vol. 3, pp. 1086-1087.

5) The noise levels observed in Sunland Park are similar to noise levels one would observe in urban or suburban environments throughout the United States; the levels were typical for this type of community. No readings suggested the need for mitigation measures. Vol. 3, p. 1088.

6) The Landfill does not have a negative impact on noise levels in Sunland Park. It is not a source of noise within the community due primarily to distance from receiver locations and intervening higher terrain with the berm between the working face and the residential areas. Vol. 3, pp. 1088-1089.

7) The noise levels measured do include the contribution of the trucks traveling down McNutt Road and turning into the Landfill, but the

noise contribution from the trucks was not significant and did not add to any noise levels above the impact thresholds. Vol. 3, pp. 1090-1091.

8) Standing 30 feet from an idling truck, the decibel level range would be in the high 60s to low 70s. An idling truck could interfere with sleep patterns in the community if it is within 100 yards and possibly within 500 yards if the receiver is outdoors. Beeping noises associated with trucks and heavy equipment backing up would probably be in the upper 50 dB to lower 60 dB range at 500 yards. Vol. 4, pp. 1339-1341.

9) Mr. Tillar followed HUD guidelines for his testing, taking noise measurements at the location of the nearest residence approximately 70 feet from the roadway, and not at a distance of 25 feet from vehicles as is apparently contemplated by local ordinance to protect mobile pedestrians from annoyance. Vol. 5, pp. 1590-1601.

10) The wind can affect noise levels if it is strong enough by carrying the sound pressure waves in the direction of the wind. During his noise measurements, Mr. Tillar did not hear sounds of any machinery coming from the Landfill at any location. Vol. 5, pp. 1841, 1844.

11. Marla Shoats, Government Relations Consultant and Lobbyist

A. Ms. Shoats described her background, her experience in groups dedicated to pursuing environmental justice in New Mexico, and her understanding of the Rhino case.

B.

1) In 2004 Ms. Shoats was appointed by Secretary Curry to the Environmental Justice Planning Committee, which had as its purpose the development of environmental justice principles and outreach to communities. The Committee set up listening sessions around the state and heard from a lot of citizens; one of the primary concerns was that environmental justice was not part of the criteria in the permitting process. Vol. 6, pp. 2355-2358.
2) Three additional groups were created to continue building environmental justice principles at the state: the EJ Policy Committee, the EJ Working Group and the EJ Interagency Task Force. The Policy Committee was charged with setting up the framework for the Governor's Executive Order on environmental justice. Vol. 6, p. 2359.
3) Executive Order 2005-056 calls for the meaningful involvement of the public in the state's process, the dissemination of information regarding the process in a meaningful and effective manner, translated in Spanish and English or other predominant language of the community, and training within the agencies on cultural

sensitivities and the concept of environmental justice. These objectives are being accomplished in CRLF permit renewal process and hearing, with scoping meetings, town hall meetings, the compilation of the Community Impact Assessment and the translation of that document into Spanish, and the distribution of relevant information throughout the community. Vol. 6, pp. 2361-2364.

4) In 2005 Ms. Shoats was appointed to the EJ Working Group, a large diverse group brought together to rewrite the solid waste regulations and the solid waste plan to incorporate environmental justice principles. These regulations have been adopted, but did not change the basis on which a permit will be issued. Vol. 6, pp. 2365-2366, 2371, 2379-2380.

5) The concepts of fair treatment and meaningful involvement are related: with early and adequate notice, time and assistance to prepare, meaningful involvement should equate to fair treatment. Vol. 6, pp. 2368-2369.

6) Proliferation is not defined in the solid waste regulations but is defined in the dictionary to mean growing or increasing by rapid production. It is difficult to determine what mechanism an agency would use to deny the renewal of a permit; Ms. Shoats believes the term should apply only when there is a new siting. The legislature has not been able to come to consensus on guidance to the Department on this issue. Vol. 6, pp. 2371-2373.

7) Assuming 12 industrial sites in the Sunland Park community, Ms. Shoats does not know how many of those facilities are under the jurisdiction of the state of New Mexico. If the concept of proliferation would result in closing some of the sites, those sites that are related to problems the community is facing are the ones that should be closed. The Working Group did recognize the difficulty with establishing proliferation as a criterion in a permit renewal, and no regulations have been put in place to address denial of a permit for renewal based on proliferation. Vol. 6, pp. 2373-2377.

8) A Community Impact Assessment is a tool for consideration when listening to the community, a cumulative description of what is happening in the community and what the impacts are. In this permit renewal, a Community Impact Assessment was not required but was nevertheless done by Camino Real. It will allow the decision-makers to assess concerns and consider them as part of the permitting process, to evaluate whether the facility is a hazard to the community. Vol. 6, pp. 2377-2378, 2381-2382.

9) Public participation must be considered and public input can be used in setting conditions on a permit. That input would not provide a basis for denial of a permit application if that facility meets the technical requirements and does not pose a hazard to public health, welfare or the environment, or undue risk to property. Vol. 7, pp. 2778-2780.

10) Ms. Shoats will be paid approximately $15,000 for her time in this proceeding. Vol. 8, p. 3159.

12. Thomas Van Zandt, Environmental Assessment Consultant

A. Mr. Van Zandt described his varied work background, and his supervision of the multi-disciplinary team hired to assess impacts to the Sunland Park community and the environment associated with the Landfill.

B.

1) Mr. Van Zandt was asked to do an environmental justice analysis in connection with the last permit renewal process in 1996, and for this permit renewal was asked to prepare a Community Impact Assessment. He assembled a team including three environmental planners, a senior economist, a senior sociologist, technical specialists in air quality, noise and transportation, a hazardous waste expert, a professional geologist and a historian skilled in photographic analyses. Vol. 7, p. 2518-2521.
2) CRLF was not required to prepare a Community Impact Assessment (CIA) or the addendum by the old or new solid waste management regulations, by the Rhino opinion or by the Executive Order on environmental justice, but did so in order to have robust community involvement in its permit renewal process. Vol. 7, pp. 2522, 2539-2547.

3) The draft rules available to Mr. Van Zandt when they were performing the assessment did not set out a required methodology for the CIA; they decided to follow the basic approach under the National Environmental Policy Act, which describes a methodology for preparing environmental impact statements and environmental assessments for federal projects because it is a familiar model which is the subject of much guidance and has been tested in the courts for 30 years. Vol. 7, pp. 2549-2550, 2553.

4) The sociologist on Mr. Van Zandt's staff is aware of the field of study relating to the social impact assessments described by Dr. Pena, but they believe that approach is less appropriate to an administrative proceeding and more appropriate for doing assessments of traditional societies and tribal situations. Vol. 7, pp. 2554-2559.

5) The assessment included community meetings: the first round of meetings was to solicit comments, which became a roadmap for the development of a work plan to collect additional data; the second round of meetings included a presentation of the team's preliminary findings on the priority list of concerns. Vol. 7, pp. 2563-2564, 2567.

6) Twenty-eight viewpoints were considered for the visual and aesthetic impact portion of the assessment; the mesa dominates the landscape, not the Landfill, which is visible mostly as a berm with oleanders on top. Natural landforms and terrain features screen

landfill operations from most points of view. Vol. 7, pp. 2569-73, 2580-2581.

7) The air-quality portion of the assessment reflects a dusty environment in the northern Chihuahua Desert, with 85% of the dust attributed to wind erosion, especially road dust from paved and unpaved roads. All landfill emissions are within regulatory limits; there are no significant air-quality impacts from the Landfill. Vol. 7, pp. 2584-2585, 2588.

8) As for odor, nothing in the Landfill corresponds to a lot of the complaints made, such as burning trash; the most prominent odors detected were from the City's wastewater treatment plant and the stables. Vol. 7, pp. 2586-2587.

9) The evaluation of ambient noise in the community showed noise to be within acceptable standards, and landfill-related traffic is a small percentage of total traffic on the roads in Sunland Park, about 3%, or 300 vehicles/day. Vol. 7, pp. 2588-2589, Vol. 8, pp. 3165-3167.

10) The CIA does not include an independent public health assessment; the team looked at available information, including the 1993 EPA multi-media study and the ATSDR study, and concurred with those findings. Vol. 7, p. 2589.

11) The finding as to economic impact was that the Landfill has a modest but positive effect on the economy of Sunland Park and Dona Ana County. Vol. 7, p. 2596.

12)Mr. Van Zandt corrected the number given earlier for the cost to the City of choosing not to renew the host agreement with the Landfill. The correct number is $650,000 per year, including disposal costs; the error was based on the overstatement of cubic yards of disposal of City waste and the addition of gross receipts tax. Vol. 7, pp. 2587-2598.

13)Mr. Van Zandt does not believe that there is a proliferation of landfills in the Sunland Park community. The nearest operating landfill is 30 miles away, and there is a closed landfill about 17 miles away (McCombs) which has not operated for several years. Neither of these landfills have any potential impact on this community. Vol. 7, pp. 2602-2603.

14)The difficulty of trying to develop a workable methodology for defining "proliferation" is illustrated by the inclusion in Mr. Moore's list of things such as wastewater treatment plants, which are intended to alleviate pollution, horse stables, unpaved roads, the Chihuahuan Desert, Sunland Park Mall, and the planned international crossing. The assessment team did not find an unexpected or unusually large number of facilities that would characterize Sunland Park as a particularly industrial area; rather, it is an urbanizing area. Vol. 7, pp. 2605-2610, 2615.

15)Mr. Van Zandt does not agree with the City's economists that the Landfill serves as a disincentive to economic development in the

community; they relied on references based on hazardous waste facilities and brown fields, which are very different facilities. One of the reports cited included a finding of a minor effect on property values within 1000 feet of a landfill but that beyond 1000 feet the stigma effect goes to zero. Vol. 7, pp. 2620-2621.

16) In the addendum to the CIA, the team interviewed city planners and others to provide further information on economic impact: the City has recently annexed 600 acres towards Santa Teresa to accommodate growth, a new wastewater treatment plant will replace the closed one, Sunland Park Drive has been extended to McNutt for increased mobility, a new amusement park opened this year, with a new hotel and restaurant planned next door. A new sports complex is planned, as well as a new RV park, and a retail shopping center at Mc Nutt and Racetrack, and the City's master plan includes an entertainment corridor which will be linked with the Anapra crossing, and will include a river trail, geological park, science museum, and amphitheater. Vol. 7, pp. 2622-2625.

17) CRLF furthers the purposes of the Solid Waste Act; it is a scientifically advanced type of facility intended to protect the environment from the illegal dumping of municipal solid waste. Vol. 7, pp. 2626-2628.

18) The Landfill is also furthering the recycling goal in the Solid Waste Management Plan for New Mexico; they recently opened a fairly substantial recycling facility adjacent to the office. Vol. 7, p. 2638.

19) The socioeconomic profile for Sunland Park shows a median household income lower than the county and the state, percentage persons of color higher than the county and state, more limited English proficiency and lower educational attainment, consistent with the demographics that might be expected in communities along the US-Mexico border. It is not, however, a colonia, because it has a lot of the infrastructure that would be lacking in a colonia. Vol. 7, pp. 2639-2640.

20) Comparing Sunland Park with 27 other communities similar in population on the HUD list, Sunland Park shows the third highest population growth in the 1990s, the greatest decrease in the poverty rate, a lot of recent immigration and a decrease in English proficiency, and the highest increase in median home value. Vol. 7, pp. 2655-2657.

21) The continued operation of the Landfill will not create a public nuisance or a hazard to public health or welfare or the environment, or an undue risk to nearby property. Vol. 7, pp. 2658-2659.

22) Mr. Van Zandt is not recommending that the applicant fund or contribute to a large health assessment; their recommendations are more in the direction of public education and possibly assistance to local clinics, and educational materials for the schools. Vol. 8, pp. 2818-2819.

23) Mr. Van Zandt's team did not conduct an ethnographic study or psychological investigation of the community, but the broad social-psychological elements manifested by the attitudes and perceptions of people were amply demonstrated in the public involvement process, and quality of life can be assessed in other ways. Vol. 8, pp. 2848-2862.

24) Mr. Van Zandt was paid $200 an hour for his work. Vol. 8, p. 3160.

13. Darrell Dechant, Ph.D., Certified Industrial Hygienist

A. Dr. Dechant described his qualifications, the health hazard assessment he conducted on the Landfill in 1996, and again for this permitting cycle, to ascertain whether the Landfill has the potential to represent a public health threat to the Sunland Park community.

B.

1) Dr. Dechant first considered whether materials disposed at the Landfill have the potential to expose Sunland Park residents to harmful levels of chemical or biological agents through the air from the time they arrive at the facility until they are buried. He found no exposure threat and no pathway by which potential materials could represent a hazard. Vol. 7, pp. 2689-2696.

2) Dr. Dechant next considered whether the groundwater supply used by Sunland Park could become contaminated by landfill activities, thereby exposing residents to potentially harmful concentrations of

chemical or biological agents via its consumption. He found that it would be a virtual impossibility that activities at the Landfill could contaminate the drinking water supply for Sunland Park, all water supply wells are up-gradient of the Landfill, among other reasons. Vol. 7, pp. 2698-2710.

3) Dr. Dechant next considered whether landfill gases, including VOCs, generated within the cells during decomposition of waste materials have the potential to expose Sunland Park residents to harmful levels of chemical or biological agents through the air. He found no viable pathways for the gases to present a hazard to the community. Vol. 7, pp. 2711-2721.

4) Dr. Dechant next considered whether fugitive dust generated at the Landfill has the potential to cause or contribute to harmful dust exposures in Sunland Park. Monitoring of PM10 in the area by the state shows that Sunland Park is in attainment and meets the conservative ambient air quality standard that is protective of children, elderly and asthmatics, and thus the community is not overexposed to fugitive dust, even considering all sources of dust present, including the Landfill. If the Landfill would cause the community to go out of attainment, or would result in significant deterioration of air quality, it would not have been able to get a Title V permit. Vol. 7, pp. 2722-2729, 2743-2745, 2748.

5) Considering the comparative locations of the Landfill, the City of Sunland Park and Asarco, and the predominant winds in the area, it is not likely that pollution will blow from Asarco to the Landfill and from the Landfill to the City. Vol. 7, p. 2741.

6) Dr. Dechant reviewed the earlier public health studies done in the community: the 1993 EPA study determined that there were no violations of any regulation, and no viable pathways of exposure to the community. The 1996 AMASI Anecdotal Observation Study reflects a lot of concerns expressed about asthma, allergies and skin disorders, but the subsequent environmental health assessment by the University of Texas found asthma rates, mortality rates, congenital abnormality rates and causes of death to be similar between Sunland Park and the rest of the state, an absence of elevated blood levels in Sunland Park children, no common cause for skin disorders, and the conclusion that there was nothing unusual or unexpected in Sunland Park residents in terms of health conditions. The 2001 Health Assessment of VOCs indicates that the Landfill is not a meaningful contributor to VOC levels. The 2007 Snapshot Study of Sunland Park is not scientific, but a collection of anecdotal observations. Vol. 7, pp. 2749-2769.

7) The Landfill is not capable of causing the illness or health concerns that have been described during the hearing such as diabetes, cancer, blood diseases, heart attacks or vision problems, or asthma

or allergies. Dr. Dechant found no hazards to public health or the environment or undue risk to property arising from landfill activities, even if considered with the cumulative effects of everything else, including industrial sites, present in the community. Vol. 7, pp. 2770-2771, Vol. 8, pp. 2833-2834.

8) There is no reason to do additional health assessment in the community with respect to the impact of the Landfill. Many pathway analyses have been done, the concerns of the community have been extensively investigated and determined to be not associated with the Landfill. Without exposure to hazardous agents and viable pathways, no further health effects assessment is performed. Vol. 7, p. 2775, Vol. 9, pp. 3285-3288, 3355.

9) Dr. Dechant is being paid $175 an hour for his work. Vol. 8, p. 3160.

14. John Howden, MAI, Real Estate Appraiser and Consultant

A. Mr. Howden described his professional background and his review of property values in Sunland Park. He also commented on the City's experts' Report.

B.

1) Mr. Howden was asked to review the value of homes in Sunland Park, and found that, with the exception of the northernmost area studied, the highest prices per square foot are in the areas that are

closest to the Landfill. Moving away from the Landfill and toward McNutt the average prices went down. Vol. 14, pp. 5760-5762.

2) The number of sales Mr. Howden reviewed was not large enough to make general conclusions about the area, or to draw conclusions about the effect on home prices of the existence of the Landfill over time. Vol. 14, p. 5762.

3) Dr. Widner did a study looking at values within one mile of the Landfill, but did not have sales data for residences and based his study on tax-assessed values, which is a horrible system for the evaluation of individual properties. Vol. 14, pp. 5766-5768.

4) Of the sales Mr. Howden reviewed, the newer homes tended to be closer to the Landfill and probably had something to do with why the prices are higher. Vol. 14, p. 5773.

5) Mr. Howden is being paid $175 an hour for his work. Vol. 14, p. 5781.

6) The sales price for each of the 18 houses Mr. Howden reviewed is an indication of fair market value of the house on that date of sale but is not necessarily the value of the property. Mr. Howden is not extrapolating to the community as a whole and the true value of a property would also include the consideration of several comparable properties. Vol. 14, pp. 5786-5788.

15. James Holcomb, Ph.D., UTEP Economics Professor

A. Dr. Holcomb described his academic work, and his review of the report on socioeconomic impact prepared by Dr. Erickson and Dr. Widner.

B.

1) Dr. Holcomb does not believe Dr. Erickson and Dr. Widner did the work necessary to support the general conclusion they reach that there is no benefit to the city or county from the Landfill. Vol. 14, pp. 5796-5802.
2) Specifically, they took a previous study that showed some positive economic benefit and tried to change the level of analysis relating to multipliers without determining the multiplier for the community of Sunland Park. Vol. 14, pp. 5800-5803.
3) They also concluded that the Landfill will stifle economic development according to the master plan without presenting evidence or data to support this conclusion; although a study could be designed to indicate impact, no study was done or data gathered. Vol. 14, pp. 5804-5808.
4) No evidence is presented to support the conclusion that the Landfill has a negative impact on property values; all that is included is a table reflecting research into tax values of properties within a mile of the Landfill and an indication of what it would mean if property values are 5% too low or 10% too low, etc. No data whatsoever is included and no study has been done to isolate the impact of the