STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

APPLICATION OF GANDY MARLEY, INC. TO MODIFY THEIR EXISTING NMOCD RULE 711 PERMIT NO. NM-01-019 SO THEY MAY ACCEPT SALT-CONTAMINATED OILFIELD WASTES

CASE NO. 13480
ORDER NO. R-12306-B

DECISION AND ORDER OF THE DIVISION

This case came for hearing on May 23, 2005, at Santa Fe, New Mexico, before Hearing Examiner William V. Jones of the Oil Conservation Division ("the Division" or "OCD"). The applicant, Gandy Marley, Inc. ("GMI") appeared through counsel at the hearing and presented evidence in support of its application. Controlled Recovery, Inc. ("CRI") appeared through counsel at the hearing and presented evidence against GMI's application. Dr. Don Neeper appeared *pro se* as spokesperson for New Mexico Citizens for Clean Air and Water and presented evidence against GMI's application. The Division appeared through counsel at the hearing and provided information on GMI's application.

I. DECISION

A. Background.

GMI is the operator of record and surface owner of a commercial surface waste management facility located in Sections 4, 5, 8, and 9, Township 11 South, Range 31 East, in Chaves County, New Mexico, permitted pursuant to 19.15.9.711 NMAC under OCD permit number NM-01-0019. GMI received its original permit from the Division on January 27, 1995, for remediation of hydrocarbon-contaminated soils. The permit has undergone periodic reviews by the Division since that time.

On March 4, 2005, the Division notified surface certain waste disposal facilities in New Mexico previously permitted by the Division, including GMI, to immediately cease accepting salt-contaminated oil field wastes. Salt- contaminated wastes compromise the biodegradation capacity of landfarm operations and threaten groundwater.

Although the Division's rules do not distinguish between the terms, landfarms and landfills and both are considered surface water management facilities under Division rules, in practice, the Division makes such a distinction. The term, "landfarms," is intended to apply to those surface waste management facilities that remediate hydrocarbon contaminated soils. Soils treated in landfarms are intended to be reused. The term, "landfills," is intended to apply to surface waste management facilities that accept oil field contaminated wastes for permanent disposal because they cannot be

remediated. This Decision will distinguish between the two classifications of surface waste management facilities by utilizing those terms.

The Division notified certain waste facilities operating as landfarms to cease accepting salt-contaminated wastes because the public notices given prior to the issuance of those permits, as was the case with GMI, stated the permits were for landfarming to remediate hydrocarbon contaminated soils. In fact, the language of the permits actually approved by the Division was broader and allowed facilities, such as GMI's, to accept oilfield contaminated solids either exempt from the Resource Conservation and Recovery Act ("RCRA"), 42 U.S.C. §§6901, et, seq., Subchapter III (Hazardous Waste Management) requirements or non hazardous by characteristic testing or listing, which included salt- contaminated oil field wastes not subject to remediation. Because the permits were broader in scope than the contents of the notices, they were voidable and required correction by the Division.

Landfarm permits, including GMI's, allow the Division to administratively change permit conditions for good cause shown to protect fresh water, human health, and the environment. The Division's March 4th letter to landfarm operators stated it was necessary to modify their permits to protect fresh water, human health and the environment. The following administrative change was made to the permits by the March 4th letter:

> Effective immediately, the NMOCD permitted landfarm identified above is prohibited from accepting oilfield waste contaminated with salts.

The Division's letter also stated that for a landfarm to accept salts, the permit holder must apply for a modification of the permit pursuant to 19.15.9.711.B(1) NMAC and follow the notice requirements of 19.15.9.711.B(2) NMAC.

Following receipt of the March 4th letter, GMI applied for a modification of its permit to allow it to accept salt-contaminated oil field wastes. Additionally, on March 10, 2005, GMI applied for an emergency order to enable it to accept salt- contaminated oil field waste pending an order on its application for a permit modification.

On March 11, 2005 and March 25, 2005, the Division issued emergency orders R-12306 and R-12306-A, to allow GMI's landfarm to continue accepting salt-contaminated oilfield wastes; provided that,

> [A]ny salt-contaminated oil field waste shall be kept separate from non salt-contaminated waste; and provided, further, that such extension shall only remain in effect until a determination is made by the Division on Gandy Marley's application to amend its current landfarm permit.

On March 29, 2005, the Division requested additional information from

GMI. Thereafter, on April 8, 2005, GMI submitted a revised application for a Waste Management Facility. The Division gave notice of the hearing in this matter, set for May 19, 2005 (later, continued to May 23, 2005, at the request of the parties), to GMI and others interested in the matter. Notice of the hearing was published in the Roswell Daily Record on April 15, 2005, and in the Lovington Daily Leader on April 14, 2005. GMI provided notice to the Chaves County Board of Commissioners, the New Mexico Commissioner of Public Lands, and the United States Bureau of Land Management on April 25, 2005, and provided a correction of public notice to the same entities on May 6, 2004. Notice was also published on the Division's website.

This matter is before the Division for action on GMI's application to amend its current landfarm permit.

B. Procedural Motions Submitted by the Parties.

Prior to the hearing, CRI filed a motion (CRI's Motion to Exclude from Consideration Information Not Contained or Disclosed in Gandy Marley's Amended Application for Waste Management Facility ("the Motion")) to exclude from consideration by the Hearing Examiner information CRI contends was not contained in or disclosed to the public as part of GMI's application. CRI objects to GMI's Pre-Hearing Statement as seeking to supplement GMI's application. The Hearing Examiner took the Motion under advisement.

At the hearing, GMI made a motion to prevent CRI from opposing GMI's application based on lack of standing. GMI contended CRI only had an economic interest in this case and is not otherwise an "affected" party. The Hearing Examiner denied GMI's motion.

At the hearing, CRI also made a motion to dismiss this case claiming GMI failed to file a complete application. CRI maintains GMI had not, and would not; present a specific closure plan for the proposed facility as required by Division rules. This motion was also taken under advisement for consideration in conjunction with the Motion.

C. GMI's Evidence.

1. Summary: GMI presented its case through its application, exhibits, and witness testimony. GMI contends that, until the March 4th letter from the Division, this facility was allowed to take salt-contaminated oil field solid waste into separately segregated bermed areas, called "cells." GMI's application merely seeks modification of its existing permit to restore the previously permitted ability of this facility. GMI's drawings submitted as part of its application are adequate to construct cells capable of safely encapsulating salt- contaminated wastes. The closure plan provides for cells to be closed as they are being filled. No change in the existing financial bond is required because closure of landfill cells is no more complicated than closure of landfarm cells. Groundwater below the facility is poor in quality, cannot be beneficially used, and can only be produced at a low rate. The clays and low permeability silts of the Upper

Dockum group adequately protect the existing groundwater from possible contamination from salts placed in this facility.

2. Testimony:

a. Mr. Robert W. (Bill) Marley – Mr. Marley was qualified as a contractor and owner, but not as a designer of the facility. Mr. Marley is part owner of the waste disposal facility and owns the adjacent ground surrounding the facility – purchased in 1966 – and also owns a 40 square mile cattle ranch surrounding the facility.

All water used by Mr. Marley's ranch is piped in from wells drilled on top of the Caprock into the Ogallala water sands. Mr. Marley made the decision to drill two water wells near (but outside of) the existing facility. The drilling and testing contractor was Mr. Clayton Barnhill of CMB Environmental & Geological Services, Inc. The two wells were drilled in May, just prior to the hearing. The MW#1 is located on the Southside of cell 15. The MW#2 is located south of the outer berm between cells 18 and 20.

The waste facility has taken oil field drill cuttings for many years and placed them into 6-inch lifts and disked every two weeks. Cells 15, 18, 20, and 21 are currently taking salt-contaminated oil field waste consisting mostly of drill cuttings. Facts (such as the depth to ground water and the salinity of that ground water) within the GMI application submitted in March in support of an emergency order to allow GMI to continue taking salt-based oil field wastes were based partially on memory.

The facility boundaries after the permit modification would be the same as the boundaries prior to the permit modification. There is no confirmation on the degree of salinity of the different types of salt-contaminated oilfield wastes being accepted by the facility. Landfarm cells are being sufficiently remediated to grow certain types of plants – especially salt tolerant plants. If the proposed permit modification is approved, then salt-contaminated waste will be placed into the landfill cells in a thick layer and encapsulated with a clay liner on the bottom and an evapotranspiration layer on top. Landfill cells will be closed as they are filled, by placing a cap of remediated soil on top.

b. Mr. Patrick Corser, P.E. – Mr. Corser was qualified as an expert Geotechnical Engineer. Mr. Corser was the project manager for the permitting of GMI's Triassic Park facility and works for MWH Global, Inc. He presented testimony on soil layers and groundwater.

The Upper Dockum consists of claystones, siltstones, and sandstones, while the Lower Dockum is more homogeneous and contains low permeability claystones and mudstones. A perched aquifer originates either from the Ogallala aquifer (underneath the Caprock) or from surface infiltration. Water flows down through the alluvial deposits and is trapped between the Upper and Lower Dockum units. "Perched" means that there is no direct communication between the perched aquifer and any lower aquifer. It is limited in lateral extent and pinches out to the west.

There are three factors that help prevent adverse impact to these perched waters: (1) the arid climate with net evaporation greater than net infiltration, (2) low permeability sediments beneath the facility, and (3) a clay liner will be placed below the wastes. Existing perched water has a very low pump rate and is of very poor quality. The closure plan is different for the landfill cells and landfill closure will take less time than landfarm closure. Operators applying for a permit look to the OCD for guidance on what is required for design, operation, and closure. Because clay covers do not perform well in arid climates, an evapotranspiration layer is best. The existing clay underlying the landfarm has a hydraulic conductivity ranging from 10^{-5} to less than 10^{-7} centimeters per second. Cells will be excavated to a depth of up to 20 feet and the berms placed from 5 to 10 feet above ground level. Cells would be filled to the top of the berms. A change in design would be necessary for a leak detection system to work.

Disposal of some solid debris in the waste may puncture the clay liner and should be avoided. The salt wastes are best deposited at or below ground level, instead of from 5 to 10 feet above ground level as proposed by GMI. A clay cap should be installed with two feet of other soil on top of the clay.

c. Dr. William L. Mansker – Dr. Mansker was qualified as an expert geologist. He became involved with this project about 2 months ago, reviewing the records and gathering additional information. Over the years, he has developed a superior way of measuring salinity in soils while in the field.

He used this method and electric logs to determine that salinity increases with depth in the Upper Dockum. He drilled and sampled drill cuttings from the latest two monitor wells, which were drilled in May. The pump testing of those wells was contracted to another party.

He testified that GMI would be constructing the landfill cells below the alluvium. There exist many feet of almost impervious clays and silts in the Upper Dockum and any groundwater that exists is not useable. Any gradient of the perched, discontinuous aquifer may not exist and is almost impossible to determine. In any case, more than two wells would be required to define any gradient.

d. Mr. Edwin E. Martin – Mr. Martin is an employee of the Division's Environmental Bureau and his duties include reviewing environmental related administrative applications.

The permit as presented so far (prior to hearing Dr. Neeper and the CRI presentations) is "actionable" with the possible addition of conditions such as vadose zone monitoring and possibly a different cap design. The permit as proposed is to convert one of the existing landfarm cells into a landfill cell capable of disposing of salt-contaminated wastes. The closure plan as presented may be sufficient as long as the Division can monitor it.

However, the details of the way the closure would be monitored are missing from the plan, those details are still needed, and the Division does not have enough inspectors

to monitor a closure. The proposed modification to this permit can be considered a major change in the way the facility is operated. The proposed landfill wastes would be considered hazardous wastes, except they originate from oil field operations and are RCRA exempt. An operator's history of reporting compliance to the Division is an important factor to consider prior to granting additional permits.

D. CRI's Evidence.

1. Summary: CRI presented its rebuttal case through cross-examination of GMI witnesses and testimony from its expert witnesses. CRI's position is that converting from a landfarm to a landfill constitutes a major change to the permit due to the dangers from salt-contaminated oil field wastes. The salt cannot be remediated and therefore must be carefully placed into a long term and secure facility. These wastes also will likely contain dangerous chemicals and materials that are a further threat to public health and to the environment. They must be securely encapsulated and prevented from being leached into surrounding soils and eventually into groundwater, which must be protected.

Based upon review of the Division's records, GMI does not have a history of adequate reporting and compliance with existing permits. GMI does not even know which cells in this landfarm already contain salt-contaminated wastes. The application submitted for approval by GMI is brief and inadequate in many critical areas. The Division should not approve this permit modification as it clearly does not ensure that public health and the environment will be protected.

2. Testimony:

a. Mr. Larry Gandy – CRI called Mr. Larry Gandy for questioning as a hostile witness. He is part owner in the facility and was primarily responsible for reporting and monitoring. Even after entering into an agreement with CMB Environmental & Geological Services, Inc., the required quarterly reports were not always submitted to the Division. The agreement with CMB does not specify that CMB submit the reports to the Division – although that is the understanding. GMI has had deficits in reporting to the NMED.

The Division's data concerning GMI's permit is not all in one place. Cells to be converted to landfill status will consist of groups of cells remediated to Division standards. GMI screens the trucked-in waste arriving at the facility for the type of waste by sampling, or by experience, then attempts to keep the salt waste separate from the oily wastes. The salt was not, though, always kept separate and it is not known which cells are salt-contaminated. Cell 22 has never received any salt waste.

GMI is not seeking to expand the footprint of the facility because it is cheaper to use existing cells. The GMI engineer did not provide the wording for the intended closure plan or any actual engineered plans - Mr. Marley developed the closure wording that was submitted in the application. There will be plenty of excavated, new soil to be

used for the berms and the closure – but this is not specified in the plan and has not been required by the Environmental Bureau.

b. Mr. James A. Bonner (Gordon Environmental) – Mr. Bonner is a registered professional geologist. He previously worked with S.M. Stoller Corporation and worked on the pre-siting and the siting of the nearby Triassic Park Facility, which was permitted through NMED, but never constructed. He was qualified as an expert hydrogeologist.

A test hole drilled in 1993 within the Triassic Park facility (PB-14) sampled water from the top of the Lower Dockum and has been considered to be the most representative well for groundwater below the facility. The water sampled from that well was tested at 4,900 TDS. This data was available to GMI and should have been used in the application for an emergency order, but was not. The core holes drilled for the Triassic Park facility showed the Lower Dockum to be a continuous thick clay layer. The Upper Dockum is more discontinuous and can switch from mostly clay and some sand, to mostly sand and some clay within a short lateral distance. Therefore, water could possibly migrate downward by hitting a clay lens and moving laterally until the clay changed to sand, then moving down again.

The GMI proposed landfill should either have numerous core holes drilled to prove the base is protected by natural clay or use an engineered barrier. The Triassic Park permit included a groundwater waiver covering the Santa Rosa waters at the bottom of the Lower Dockum group.

Monitor wells are normally installed upgradient and downgradient, but a water gradient may not even exist here.

The perched water probably moved into buried sandstones over millions of years and is trapped by impermeable barriers from further movement. The alluvium at this facility is approximately 30 feet thick and made of detritus from other formations and recent material. If fluid escapes from this proposed landfill, it likely will first move laterally through the alluvium – so engineered barriers for the cells are necessary. The Upper Dockum originally included fresh water, but the water became salty after millions of years of other water leaching salts into it from younger, overlying deposits that have since eroded.

c. Mr. Ian Keith Gordon P.E. – Mr. Gordon is president, and principal engineer of Gordon Environmental, Inc. He is a geotechnical engineer and was qualified as an expert engineer on land-disposal issues.

The application is grossly deficient – especially since the drawings are not engineering drawings, but simple sketches. No site specific topographic maps were included and are needed to design the drainage. The proposed construction of the engineered barrier is deficient, due to the lack of standards, test methods, and methods of protection. The method of construction used for the site berm is not provided.

Flooding concerns exist primarily because of the switch from landfarm to landfill – and this flooding must be estimated and dealt with. There are no quality assurance documents. There are not enough monitor wells and the application lacks statements about what will be tested in the wells and how the testing will be done.

If this salt waste were not RCRA exempt, some contaminants in the drill cuttings would be considered hazardous. Hazardous wastes must be disposed of into landfills with liners and fluid detection systems. The type of clay to be used in the clay liner or clay cap should be specified because some types of clay are affected by salt and some are affected by petrochemicals.

The standard limit of hydraulic conductivity is 1.0×10^{-7} centimeters per second after a compaction of 90 percent of standard. The applicant provided only one proctor density report (one sample) to determine the types of materials that will be used in the liner. That report stated the sample was compacted and the measured conductivity was 1.7×10^{-7} centimeters per second, which is closer to twice the desired conductivity.

There is no quality control plan to ensure the construction material will meet its performance specifications. There is no quality control on test methods and no planned third party observation during construction.

The application is lacking construction plans or construction quality control standards. A fluid collection system is needed to prevent a buildup of pressure on the liner and eventual liner failure. This requires detailed design, drawings, and construction.

The OCD has no water yield qualifications to meet in order to determine if water is to be protected. The Water Quality Control Commission ("WQCC") uses a yield hurdle in their policy of approximately 14 gallons per day, but it has not been proposed as a rule.

GMI's original application was not sufficiently detailed to verify if it was adequate to protect the public health and the environment. However, the last two weeks before the hearing were spent adding data that came closer to making that determination.

E. Dr. Neeper's Evidence.

1. Summary: Dr. Donald A. Neeper testified on behalf of New Mexico Citizens for Clean Air & Water, Inc. He was qualified as an expert in vadose zone transport and presented exhibits and testimony.

2. Testimony: Since salt cannot be remediated, Dr. Neeper is primarily concerned with containing the salt waste in the landfill – long after the landfill is closed. He is concerned about salt movement - as carried by evaporating waters - upwards towards the surface.

After the salt is "wicked" upwards, the surface soils will become "sodic" and vegetation will be destroyed. With no vegetation, erosion – especially through wind in this area – will spread the contamination. Since vegetation is vital to hold the soil from erosion, the permit requirements should include successful re-vegetation instead of just requiring re-seeding. This re-vegetation should be verified and monitored by the Division.

The methods of monitoring soil for contamination from this landfill should include traditional measurements and should also include the Sodium Adsorption Ratio (SAR) as the best overall index to monitor. To watch for movement of contaminants, the soil should be monitored at a close distance from where the waste is placed, instead of just sampling deeper monitoring wells.

Disposal of some solid debris in the waste may puncture the clay liner and should be avoided. The salt wastes are best deposited at or below ground level, instead of from 5 to 10 feet above ground level, as proposed by GMI. A clay cap should be installed with two feet of other soil on top of the clay.

The Division should not abuse the RCRA exemption and should take landfill permits seriously. His review of the Division's records indicate that OCD permitted waste disposal facilities all have a poor history of reporting, including GMI. Permits should not be routinely issued to companies with a poor reporting or compliance history. Prior to approving this landfill, the Division should convene a panel of experts who have dealt with landfills closed decades ago.

F. Public Notice Requirements.

1. Rule 711: GMI's permit application is governed by 19.15.9.711 NMAC ("Rule 711"), which applies to surface waste management facilities. Subsection B(1) of Rule 711 requires that an application for a permit to modify an existing facility must be filed on Form C –137 with the Division and the appropriate Division District Office. Subsection B(1) lists thirteen categories (a – m) of information that "shall" be included as part of the application. (Emphasis added.) Rule 711 also requires the applicant to "comply with Division guidelines" in submitting any such application.

OCD's Guidelines For Permit Application, Design, and Construction of Surface Waste Management Facilities, Revised 7-97, ("the Guidelines") offer guidance to operators in preparing permit applications for surface waste management facilities. The Guidelines state the applicant "shall submit an 'Application for Surface Waste Management Facility' accompanied by the information necessary to evaluate the application." (Emphasis added.) The Guidelines require applications be sufficiently complete in order for OCD to review them.

Under Rule 711, the applicant must demonstrate in its application that the proposed facility "will not adversely impact public health or the environment and will be in compliance with OCD rules and orders." Rule 711.B(1)(m). Once a complete

application has been filed, Rule 711 requires public notice of the filed application and at least a 30-day comment period for the public, based on the application on file with OCD.

Subsection B(2) of Rule 711 sets forth notice requirements for surface waste management disposal facilities. Those requirements are as follows:

> (a) Prior to public notice, the applicant shall give written notice of application to the surface owners of record within one (1) mile of the facility, the county commission where the facility is located or is proposed to be located, and the appropriate city official(s) if the facility is located or proposed to be located within city limits or within one (1) mile of the city limits. The Director may extend the distance requirements for notice if the Director determines the proposed facility has the potential to adversely impact public health or the environment at a distance greater than one (1) mile. The Director may require additional notice as needed. A copy and proof of such notice will be furnished to the Division.
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> (b) The applicant will issue public notice in a form approved by the Division in a newspaper of general circulation in the county in which the facility is to be located. For permit modifications, the Division may require the applicant to issue public notice and give written notice as above.
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> (c) Any person seeking to comment or request a public hearing on such application must file comments or hearing requests with the Division within 30 days of the date of public notice. Requests for a public hearing must be in writing to the Director and shall set forth the reasons why a hearing should be held. A public hearing shall be held if the Director determines there is significant public interest.
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> (d) The Division will distribute notice of the filing of an application for a new facility or major modifications with the next OCD and OCC hearing docket following receipt of the application.

Rule 711.B(7) states that "[t]he Director may issue a permit upon finding that an acceptable application has been filed and that conditions of paragraphs 2 and 3 above have been met." (Emphasis added.) Paragraph 2 is the notice requirement set forth above; paragraph 3 describes financial assurance requirements.

2. Notice and Due Process Requirements Generally: In a recent opinion (July 18, 2005) of the New Mexico Supreme Court involving a landfill permit issued by the New Mexico Environment Department under the Solid Waste Act; NMSA 1978, Sections 74-9-1 to 43, (1990, as amended); the Court stressed the importance of public participation in the permitting process:

> Our courts have previously emphasized that legislative policy favors the public's ability to participate meaningfully in the landfill permitting process. (citation

omitted) [T]he Department's failure to comply with statutory notice requirements rendered subsequent administrative proceedings invalid. (Emphasis added.)

In The Matter of the Application of Rhino Environmental Services, Colonias Development Council v. Rhino Environmental Services Inc., and New Mexico Department of Environment, Supreme Court Case No. 28,337 at ¶22.

The New Mexico Supreme Court considered the issue of notice in connection with the Oil and Gas Act in Santa Fe Exploration Company v. Oil Conservation Commission, 114 N.M. 103, 835 P.2d 819 (1992). There, competing oil producers claimed denial of due process because they were not given notice the New Mexico Oil Conservation Commission ("the Commission") would consider limiting production from an oil pool. The Court disagreed and held the producers had been "reasonably informed" of the issues the Commission would address because they knew, prior to the hearing, the Commission would be considering production rates from the various wells and the correlative rights of all parties concerned. Unlike this case, Santa Fe involved participants to a correlative rights proceeding, not whether the general public had been given sufficient notice to participate meaningfully in a permit proceeding.

Notably, in Santa Fe, the Court rejected following McCoy v. New Mexico Real Estate Commission, 94 N.M. 602, 614 P.2d 14 (1980), as urged by the parties, a case involving a realtor who was denied an opportunity to address an issue that, for the first time, was raised by the Real Estate Commission on appeal. According to McCoy, if a matter is not within the range of issues or information for which the notice was given, then presenting that issue or information for the first time, after notice has been given, denies due process.

In another notice case, Nesbit v. City of Albuquerque, 91 N.M. 455, 575 P.2d 1340 (1977), the Supreme Court considered whether the public was afforded adequate opportunity to oppose a change in a development plan from 83 condominium units to 287 efficiencies and apartments. That case is important for three reasons.

First, Nesbit makes clear that, while certain types of modifications to a plan, which may be minor, may not warrant full notice, substantial changes to a plan do warrant full notice. Second, it stands for the proposition that notice must be sufficient for a reasonable person to realize the nature of the change in the use of a property. Third, Nesbit makes clear that a defect in the notice procedure will render all subsequent proceedings invalid.

To rule on CRI's Motion, the issue to be decided is whether a reasonable person had a meaningful opportunity to participate in the hearing on this matter, based on the status of GMI's application on file with the Division at the time notice was provided. Even though the notice is not required to lay out every element of the application and its supporting information, the notice must be sufficient so that an average citizen would have been aware, based upon that notice, what GMI was seeking to modify. More importantly, once being so notified, it must be determined whether the average citizen

then had access to information necessary for a meaningful opportunity to participate at the hearing. If the record upon which the citizen must participate lacked essential information on the activity to be permitted, then GMI did not comply with the requirements of Rule 711. W

G. The Public Was Denied Meaningful Participation.

Rule 711B(1) specifies the information that must be filed with the application for a new waste disposal facility, or a modification to an existing facility:

(a) The names and addresses of the applicant and all principal officers of the business if different from the applicant;

(b) A plat and topographic map showing the location of the facility in relation to governmental surveys (1/4 1/4 section, township, and range), highways or roads giving access to the facility site, watercourses, water sources, and dwellings within one (1) mile of the site;

(c) The names and addresses of the surface owners of the real property on which the management facility is sited and surface owners of the real property of record within one (1) mile of the site;

(d) A description of the facility with a diagram indicating location of fences and cattle guards, and detailed construction/installation diagrams of any pits, liners, dikes, piping, sprayers, and tanks on the facility;

(e) A plan for management of approved wastes.

(f) A contingency plan for reporting and cleanup of spills or releases;

(g) A routine inspection and maintenance plan to ensure permit compliance;

(h) A Hydrogen Sulfide Prevention and Contingency Plan to protect public health;

(i) A closure plan including a cost estimate sufficient to close the facility to protect public health and the environment; said estimate to be based upon the use of equipment normally available to a third party contractor;

(j) Geological/hydrological evidence, including depth to and quality of groundwater beneath the site, demonstrating that disposal of oilfield wastes will not adversely impact fresh water;

(k) Proof that the notice requirements of Section 19.15.9.711 NMAC have been met;

(l) Certification by an authorized representative of the applicant that information submitted in the application is true, accurate, and complete to the best of the applicant's knowledge.

(m) Such other information as is necessary to demonstrate that the operation of the facility will not adversely impact public health or the environment and that the facility will be in compliance with OCD rules and orders.

Both the Rule and the Guidelines state an application must contain information sufficient to evaluate it on its own merits. Only after a complete application has been filed, may the Division issue a Rule 711 permit.

In the instance of GMI's application, GMI was still in the process of collecting essential information necessary to support its application after filing it. Among the items required by Rule 711 to be part of the application, which GMI either failed to include with its application or provided in such sparse detail as to be non-responsive to Rule 711's requirements, were the following: (1) detailed construction/installation diagrams, as required by Rule 711.B(1)(d); (2) waste management plan, as required by Rule 711.B(1)(e); (3) closure plan including a cost estimate sufficient to close the facility, as required by Rule 711.B(1)(i); (4) hydrogen sulfide prevention and contingency plan to protect public health, as required by Rule 711.B(1)(h); (5) complete contingency plan for reporting and cleanup of spills and releases, as required by Rule 711.B(1)(f); (6) complete inspection and maintenance plan to ensure permit compliance, as required by Rule 711.B(1)(g); (7) diagram of the proposed facility, as required by Rule 711.B(1)(d); and (8) plat and topographic map showing the location of the facility, as required by Rule 711.B(1)(b).

In its Response In Opposition to CRI's Motion To Exclude From Consideration Information Not Contained Or Disclosed In Gandy Marley's Amended Application For Waste Management Facility, GMI maintains that its Prehearing Statement did not identify any new or additional information that was not consistent with its application and the public notice.

GMI wrongly assumes that simply because it provided information right up to the day of the hearing that related *in a general sense* to its application, it complied with Rule 711. GMI fails to explain, however, why information that should have been filed as part of the application package, and that was necessary for the public to meaningful participate at the hearing, was not made available with the application, or at least available at the time the application was noticed to the public, much less made available sufficiently in advance of the hearing.

Critical information pertaining to geological/hydrological evidence demonstrating that disposal of oilfield wastes would not adversely impact fresh water supplies, and

required to be filed with the application pursuant to Rule 711.B(1)(j), was not available until well after public notice was provided of the application.

Results from two monitor wells in the form of driller's logs of samples on MW#1 and MW#2, were not available before May 12, 2005, eleven days before the hearing. Results on trace fluid analysis and pump tests on MW#1 and MW#2 were not available until May 20, 2005, three days before the hearing. And not until the very day of the hearing, May 23, 2005, were results made available on compaction permeability tests on clay from MW#1 and MW#2. These events conflict with GMI's position that no new information came in after the application was filed and notice of it was provided.

It appears GMI first attempted to present a bare, minimum application, and then, as opposition surfaced, began expanding and supporting its application with more and more data. Although GMI ultimately presented an improved amended application, even after doing so it continued to add critical data, such as well data near the facility. The two wells drilled near (but not on) the facility were drilled, sampled, and pump tested, only a few days prior to the hearing, and none of this data was ever available for public inspection at the time notice was given.

OCD routinely continues cases where inadequate notice has been given to affected parties. Because only CRI and Dr. Neeper appeared to contest GMI's application, it might be argued no others were sufficiently concerned about the application or would have benefited from GMI's compliance with Rule 711. That is not the issue.

Notice requirements in general, and in this matter, Rule 711 in particular, are intended to afford the public a meaningful opportunity to participate. The waste GMI requests permission to receive at its facility is a potential threat to health and the environment and the public deserves an opportunity to meaningfully participate in such proceedings on an informed basis. That opportunity did not exist under the circumstances of this case.

H. OCD Rules Require A Properly Noticed Public Hearing To Determine No Beneficial Use For Fresh Water Exists And That Did Not Occur.

A further deficiency in the public notice for this matter arises in connection with an important part of GMI's case. Although GMI maintained the perched aquifer was protected, GMI also sought to establish that that source of groundwater below its landfarm is not entitled to protection as fresh water.

The data obtained from GMI's monitor wells indicates groundwater is at a depth of approximately 122 feet and contains less than 9,000 mg/l of total dissolved solids. Mr. Marley testified that the water is too saline for cattle to drink and, further, the aquifer may not be capable of a sufficient sustained yield for cattle or other uses.

OCD defines "Fresh Water (to be protected)" as "all underground waters containing 10,000 milligrams per liter (mg/l) or less of total dissolved solids (TDS) except for which, after notice and hearing, it is found there is no present or reasonably foreseeable beneficial use which would be impaired by contamination of such waters." 19.15.1.7.F(3) NMAC.

The notice provided for GMI's application stated it was seeking "a modification to their surface waste management facility to allow the facility to accept oilfield waste, exempt from RCRA Subtitle C, including chloride impacted debris...and certain non-exempt non-hazardous oilfield waste." The notice also stated "Gandy Marley, Inc. has provided information describing the construction of the cells and conditions at the site that make it suitable for the acceptance of such wastes."

There is no mention anywhere in the notice for the hearing that a fresh water supply (the perched aquifer) would be subject to a determination and a finding by the Hearing Examiner that it offered no present or reasonably foreseeable beneficial use which may be impacted by salt contamination in connection with approving GMI's permit. It is hard to imagine the average citizen would glean that possibility from the notice given for the hearing.

The notice of hearing given for GMI's application did not comply with 19.15.1.7.F(3) NMAC because it did not provide adequate notice that a non-beneficial use for fresh water would be made as part of granting GMI's application. A properly advertised notice of hearing that the perched aquifer is a fresh water supply for which GMI would request a finding of no present or foreseeable beneficial use in connection with requested approval of its application by the Division was required.

I. Technical Issues.

The proposed permit modification represents a fundamental and substantial change from GMI's existing landfarm operation to a landfill facility and would entail permanent disposal of salt-contaminated waste that can never be re-mediated, as well as the likely occasional disposal of materials that would be considered hazardous, in the absence of the RCRA oil field exemption.

To ensure protection of the public health and the environment, both today and in the future, such applications should strictly adhere to all Division permitting rules and guidelines and follow all industry best practices available for the design, construction, operation, closure, and post closure of landfills. The permit application should be sufficiently detailed and the operator's compliance record with the Division should be of a sufficient quality to reasonably ensure the facility will protect public health and the environment. Based upon these standards, the following issues are of concern in GMI's application.

The GMI facility has taken salt-contaminated wastes for many years. The facility owners testified, however, they could not recall which of the cells have taken salt waste. The Division's Environmental Bureau should instruct the operator on a method to

determine the location of salt wastes within its facility and then formulate a recommendation for what should be done about those wastes. A records search and a detailed soils sampling project may be necessary.

Testimony was provided that the alluvium is 30 feet thick in the area of GMI's facility. In addition, the testimony related that any exposure of salts to the surface would be damaging to the surface environment. For those two reasons, the cells should be installed deeper than the 20 feet proposed by GMI and the top of any salt waste placed within the cells should be near or below ground level and then permanently capped with adequate clay and soil to reduce the likelihood of salt wastes ever being exposed or wicked to the surface. The final cover to the cells should be as proposed by the Division – clay plus normal dirt for evapotranspiration. In addition, the successful growth of vegetation to stabilize and hold the soil should be required. This vegetation should be maintained and monitored for several years.

The type of clay to be used in the liner and cap of landfill cells should be determined and the compatibility checked with the types of materials to be placed into landfill cells. Additional testing of samples should be performed to ensure the compacted hydraulic conductivity of the clays to be used in the liner and cap is adequate. If not, thicker clay layers should be installed. To ensure the integrity of the cell liner, the cells should be appropriately graded and a permanent leachate detection and removal system should be installed.

As an example, the leachate system proposed by Dr. Neeper is suitable for this purpose without any pipes extending through the liner. GMI's proposal to remove water from the cells with a portable pump truck is not a preferred option.

Potentially, the biggest danger to the environment is if salt-contaminated waste is not buried deep enough and vegetation does not cover the closed facility. If this were to happen, then active dunes of salty soil might destroy large areas beyond this facility and the salt could find its way into whatever stream waters exist and spread even further.

Little testimony was provided on protecting surface water (drainages). The landfill will breach eventually and salts will spread laterally. Then, the affected lands will expand, but this may take decades to occur. A berm on the Caprock side of the landfarm will help delay this. This is yet another reason for GMI to install deeper cells than it proposes or is doing at this time. It may be more costly to do so, but it will delay the spreading of wastes.

For periodic monitoring, the sampling depth should be very close to the bottom of the facility and reports should include the Sodium Adsorption Ratio. The closure plan and post closure plan should include considerably more detail.

In the record in this case are numerous letters submitted to the Division by operators and others in Lea and Chaves counties. Most of these letters expressed the need for additional facilities to be permitted to dispose of solid oil field wastes. The

Division understands the need for an adequate number of permitted facilities located close enough to current drilling. However, one Division mandate is to regulate the oil and gas industry to protect the environment. Landfills are facilities that permanently store oil field wastes that cannot be remediated. The permitting process for these facilities must be appropriately thorough – and all landfills should be held to the same high standards.

Because the technical issues do not need to be resolved to act upon the Motion and CRI's motion to dismiss, those matters will not be discussed further.

J. The Status of the Emergency Order.

The Emergency Order Extension (Order No. 12306-A extending Order No. 12306) issued to GMI to allow it to continue to operate under OCD Permit Number NM-01-002 without being subject to the Division's March 4th letter provided it would remain in effect only until such time a determination was made by the Division on GMI's application to amend its current landfarm permit.

This Decision will conclude with an Order directing GMI to submit a revised application that conforms with Rule 711 to seek its requested permit modification. The Order will require that any such revised application must be readvertised and notice thereof given as required by Rule 711. Although not a final order on GMI's application, the Order nonetheless constitutes a determination by the Division on GMI's application.

The Division is concerned that data in the application for the Emergency Order, and relied upon by the Division to support the Emergency Order and its extension, was not consistent with the facts available to GMI at the time GMI filed its application with the Division. The depth to ground water and the total dissolved solids for ground water numbers were both incorrect compared with 1994 sampling at Triassic Park.

While information relied upon by the Division to support the Emergency Order and the extension were identified as preliminary, now, in light of evidence presented at the hearing, it is clear that information can no longer be relied upon to support the Emergency Order Extension.

Testimony of Mr. Bill Marley at the hearing on GMI's application established that GMI's March 10, 2005 application to take salt-contaminated wastes on a temporary basis was drafted from "memory" without GMI investigating its records. Two glaring examples demonstrate why the Emergency Order Extension should no longer remain in effect.

GMI's emergency application represented to the Division that groundwater 150 feet below the landfarm contained total dissolved solids in excess of 15,000 ppm when, in fact, information available to GMI when it filed its emergency application indicated groundwater 150 feet below its landfarm contained total dissolved solids of less than 5,000 ppm.

Additionally, GMI's emergency application represented that an impermeable redbed clay barrier of approximately 150 feet existed between GMI's landfarm and groundwater below it. In fact, such a barrier does not exist below GMI's landfarm.

While the emergency application may have been hastily prepared by GMI resulting in errors, the Division now knows, as does GMI, that key findings relied upon to issue the Emergency Order and the extension are no longer valid. For that reason, and, because this Order constitutes a determination on GMI's application, the Emergency Order Extension is no longer in effect and GMI must immediately comply with the Division's March 4th letter.

K. GMI's Failure To Comply With Quarterly Reporting Requirements Under Its Existing Permit.

GMI has a sketchy history of complying with Division reporting requirements. In fairness to GMI, many landfarm operators also have a poor history of meeting reporting obligations. GMI's hiring of CMB Environmental & Geological Services, Inc. to conduct sampling and analysis at its landfarm operation is a positive move. However, GMI's record of non compliance merits consideration in connection with any approval of its permit request to expand its landfarm operation to a landfill facility.

Rule 711.B(1)(m) requires an application shall contain "such other information as is necessary to demonstrate that the operation of the facility will not adversely impact public health or the environment and that the facility will be in compliance with OCD rules and orders." (Emphasis added.) Given GMI's past history of non compliance with OCD rules and orders in meeting its reporting requirements to the Division, GMI surprisingly did not include any information as part of its application demonstrating that its proposed landfill facility will, in fact, be operated in compliance with OCD rules and orders.

One of the statutory duties of the Division is "to regulate the disposition of nondomestic wastes resulting from the oil field service industry...to protect the public health and the environment including administering the Water Quality Act [Chapter 74, Article 6 NMSA 1978] as provided in Subsection E of Section 74-6-4 NMSA 1978." NMSA 1978, § 70-2-13 B(22) (1978, as amended). In evaluating whether GMI's application will protect the public health and the environment, and in administering the Water Quality Act as provided by NMSA 1978, § 74-6-4, GMI's past record of performance, or in this instance non performance, is a relevant consideration in acting upon GMI's application. Although the Order in this matter will not dispose of GMI's application in its entirety, if GMI's application is ultimately granted, or granted with conditions, a period of time (possibly, six months to one year) should be required for GMI to first demonstrate that it can comply with Division reporting requirements before it should be allowed to operate a landfill facility.

II. ORDER

THE DIVISION FINDS AND CONCLUDES AS FOLLOWS:

1. The Division has jurisdiction over this case and its subject matter.

2. Notice of the hearing in this matter was provided to the Chaves County Commissioners, the New Mexico Commissioner of Public Lands, the United States Bureau of Land Management, and was published in the Lovington Daily Leader on April 14, 2005, and in the Roswell Daily Record on April 15, 2005.

3. By the date of the hearing, May 23, 2005, the Division received 16 letters, each expressing opinions concerning this case. The names of the authors of those letters were read into the record at the hearing.

4. Notice of the hearing was posted on the Division's website and sent by e-mail to those entities who had requested notice of Division hearings.

5. GMI's initial and revised applications to amend its permit for a surface waste management facility to allow it to accept salt-contaminated oil field waste, failed to include all the information required by Rule 711 and did not comply with the notice requirements of Rule 711.

6. The Emergency Order Extension (Order No. 12306-A extending Order No. 12306) issued to GMI to allow it to continue to operate under OCD Permit Number NM-01-002 without being subject to the Division's March 4th letter should no longer be in effect.

7. GMI should immediately comply with the Division's March 4th letter.

8. GMI should have an opportunity to submit a revised application in conformity with Rule 711.

9. Any revised application filed by GMI should be readvertised and notice thereof given as required by Rule 711.

10. After GMI files a revised application in conformity with Rule 711, and after proper notice thereof is provided, the Director should exercise his discretion, pursuant to NMSA 1978, § 70-2-6 B (1935, as amended), to refer this matter directly to the Commission rather than have this matter return to the Hearing Examiner in the interests of administrative efficiency and to facilitate a speedy resolution of this matter.

IT IS THEREFORE ORDERED THAT:

1. The Emergency Order Extension (Order No. 12306-A extending Order No. 12306) issued to GMI to allow it to continue to operate under OCD Permit Number NM-01-002 without being subject to the Division's March 4th letter is hereby rescinded.

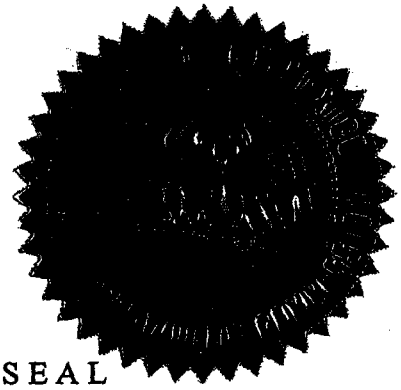
2. GMI shall immediately comply with the Division's March 4th letter.

3. GMI may submit a revised application in conformity with Rule 711.

4. Any revised application filed by GMI shall be readvertised and notice thereof shall be given as required by Rule 711.

5. Following filing by GMI of a revised application in conformity with Rule 711, and after proper notice thereof is provided, the Director hereby refers this matter directly to the Commission for further proceedings thereon.

DONE at Santa Fe, New Mexico, this 5th day of August, 2005.



SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MARK E. FESMIRE, P.E.
Director