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April 13, 2006

VIA HAND DELIVERY

Ms. Florene Davidson
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Case 13586: Application of the New Mexico Oil Conservation Division for Adoption of New Rules Governing Surface Waste Management.

CRI's Pre-Hearing Statement and Comments, Intent to Present Technical Testimony, Intent to Offer Exhibits, Intent to Cross-Examine Witnesses, Intent to Present Non-Technical Testimony, and copies of Exhibits.

Dear Ms. Davidson:

Pursuant to Division Procedural Rules 1203 and 1204 and the Division's March 15, 2006 Notice of Continuance of Surface Waste Management Rules Hearing, Controlled Recovery Inc. ("CRI") hereby submits its pre-hearing statement and comments, intent to present technical testimony, intent to offer exhibits, intent to cross-examine witnesses, intent to present non-technical testimony, and copies of exhibits it may offer as evidence at the April 20, 2006 hearing in Case 13586.

PRE-HEARING STATEMENT AND COMMENTS

The following pre-hearing statement and comments are addressed to the Division's February 28, 2006 version of the proposed Rules. For the convenience of the Commission, this submittal summarizes the major issues in CRI's prior-submitted recommended modifications in this case dated December 1, December 28, 2005 and March 9, 2006. However, CRI continues to urge the acceptance, by the Commission, of all of the recommended modifications in its prior submittals to the extent they have not already been incorporated in subsequent drafts of the Rules.

Landfarms

CRI believes that all will agree that the **purpose of a landfarm** is to (1) completely **remediate** the soils placed in it, and (2) to **re-vegetate** the affected area. Landfarms are not

disposal sites, and at closure, landfarms should not be allowed to become barren waste sites.

A landfarm is designed to remediate contaminated soils in-place and not transfer contaminants into the underlying native soils and/or groundwater, or leave unremediated contaminants in-place.

Monitoring of the treatment zone and the zone immediately below the treatment zone are essential to detect leaching of contaminants below the treatment zone, and to detect contaminants that are not being remediated.

Because remediation of soils placed in a landfarm can only be achieved if the soils placed in the landfarm are capable of remediation, contaminants that are not capable of remediation in the landfarm environment should not be placed in a landfarm.

The evolution of the draft Rules to the point where only soil contaminated by hydrocarbons and drill cuttings are allowed in landfarms is consistent with the above principles. The major remaining concern is with chlorides – salt contaminated soils and drill cuttings.

It appears that chloride levels have been set throughout the February 28th draft Rules with a view to protecting groundwater. But chloride levels - salt levels - should also be set with re-vegetation in mind. Chloride - salt contamination - is inconsistent with re-vegetation. Salt contaminated soils are endemic to southeast and northwest New Mexico. If chloride is not controlled, landfarms will *not* re-vegetate. What will result are barren waste sites larger than the barren waste sites of drilling pads that already scar New Mexico's landscape.

The chloride concentration in the waste acceptance criteria for landfarms, to the extent it serves as a rough indicator of re-vegetation success, is set too high. It should be set at 500 mg/kg, instead of 1,000 mg/kg, *before* chloride contaminated soils and drill cuttings are spread on unlined ground and left there at closure. Because re-vegetation can only be achieved if the soils placed in a landfarm will sustain re-vegetation after remediation, only soils that can achieve this purpose should be allowed in landfarms.

The **bioremediation endpoint approach** first added to the proposed Rules in February 2006 is an uncertain technology as it applies to the ultimate goal of a landfarm – re-vegetation to avoid the creation of a barren waste site. It has not been employed or tested previously in New Mexico or in an arid climate similar to New Mexico's climate. It should not be adopted by the Commission.

The first sentence of the new approach does away with the treatment zone closure performance standards otherwise applicable to landfarms (section 53.G(6)). It substitutes a regime based on *modeling* of treatment, utilizing a measure of total petroleum hydrocarbons (TPH), only, rather than an actual treatment standard itself, utilizing all of the parameters in section G(6).

Thus, a landfarm operator using the endpoint approach would be relieved of any obligation to continue treatment until he or she achieves the concentrations of BTEX, chlorides,

and 39 metals and other organics deemed necessary in proposed Rule G(6) to protect human health, safety, wildlife, groundwater and the environment.

The result would be a *disposal* site, not a treatment method. This is contrary to the idea and rationale for landfarms. Of particular concern is the failure of the endpoint regime to provide any standards for chlorides – salt – that is critical to achieving the paramount landfarm goal of re-vegetation. Ignoring chloride contamination could lead to the closure of a landfarm that would meet a modeling standard related only to TPH, but leaving chlorides that could make re-vegetation impossible. The result – a barren waste site.

Small landfarms The apparent idea behind the new small landfarms section, 53.H, is to relieve small landfarm operators, who are working to clean up accidental releases of hydrocarbons that contaminate soils, from the detailed permitting requirements in the proposed Rule, substituting a registration regime in proposed Rule H(1). CRI has no problem with that aspect of the small landfarm section.

What is troubling is that the small landfarm operator is relieved of some of the closure standards that apply to other landfarms, particularly the requirements of sampling and testing in 53.E(6)(e). Why should small landfarms be allowed to leave in place untreated, unsampled and unknown metals and inorganics that large landfarms must remediate? This could result in environmentally harmful concentrations being left in place, neither treated nor properly disposed of, risking the creation of a barren waste site. The proposed Rule should be modified to make small landfarms subject to the same closure standards as other landfarms.

Landfills

CRI generally concurs with the landfill regime set up in the proposed Rules. Just a few issues remain that the Commission should address.

The Division has advanced the idea of a **gas safety management plan** as a requirement for *all* landfills in the proposed Rule drafts first issued in 2006. CRI believes gas management planning and the implementation of expensive gas management systems is not justified in landfills accepting oil field waste. This attempts to address a problem that does not exist. CRI believes this new requirement, which has never been discussed with stakeholders or explained by the Division, is unnecessary.

CRI believes it is undisputed that oil field waste facilities are significantly less likely than municipal solid waste facilities to generate dangerous gases. But the New Mexico Environment Department requires gas safety management plans only for the two largest landfills in the state. NMED does not require gas safety management plans for landfills with a design capacity less than about 3 ¼ million cubic yards of about 2 ¾ million tons. No current or proposed OCD-permitted landfills approach this size.

CRI believes it is good public policy to continue to allow the acceptance at OCD-permitted landfills of **non-oil field wastes** that have similar physical and chemical composition to oil field wastes. For instance, CRI recently received a request from a New Mexico ethanol

producer to dispose of mole sieve (a catalyst used in processing natural gas *and* in processing ethanol). The ethanol plant is not an oil and gas operation, however it is an energy fuel refining operation that uses mole sieve for the same purpose natural gas operations use it - to produce fuel, in this case an alternative, non-petroleum fuel. Allowing this kind of waste in OCD-permitted landfills would serve the State's interest in fostering alternative energy sources. Flexibility is needed to allow that acceptance of these wastes. Needless rigidity is inconsistent with the State's environmental goals.

CRI has no objection to the existing five year **records retention** period for landfill records combined with a new requirement in the proposed Rules that the *last* five years of records be maintained for an additional five year period after the beginning of closure. CRI strongly objects to a modification of the rules to require it to maintain *all* its disposal records created from its first day of business for as long as it remains in business (nor could it comply, since it has already destroyed records more than five years old).

All facilities

CRI believes the 50 foot depth to groundwater for solid waste facility siting is too shallow. This is especially so because the proposed Rules do not require thorough lithologic or soil data to be generated, risking groundwater contamination through "preferential pathways." The Division's data on groundwater contamination events resulting from oil and gas operations in New Mexico demonstrates that the risk to groundwater would be substantially reduced if a 100 foot to groundwater depth requirement were substituted for the proposed 50 foot requirement.

INTENT TO PRESENT TECHNICAL TESTIMONY

Pursuant to Procedural Rule 1205.B(2), the entity presenting technical testimony is Controlled Recovery, Inc. The name of the witness CRI will call to testify at the hearing is I. Keith Gordon, P.E., a New Mexico professional engineer with expertise in landfill and waste facility design, operations and permitting. The approximate time Mr. Gordon will need to present his testimony is one hour.

Mr. Gordon's testimony will address landfill design and operations, waste facility permitting, waste acceptance, environmental monitoring and landfill gas management. Mr. Gordon's qualifications are contained at Exhibit C. A concise statement of Mr. Gordon's testimony follows.

Gas Safety Management

The proposed OCD Rules (2/28/06 Draft) require permit applications for new or expanded landfills to provide a "gas safety management plan" [section 53.C(1)(m)]. In section 53.F, "specific requirements applicable to landfills" §5 describes "landfill gas control systems"; and §6 prescribes "landfill gas response" procedures.

While many of the other landfill design and operating standards proposed in the Rules are appropriately derived from proven municipal solid waste (MSW) disposal regulations and technologies, landfill gas management does not similarly apply to "oil field waste".

The term "landfill gas" (LFG) is defined and described in detail in EPA and NMED regulations and guidance documents for municipal solid waste landfills (MSWLF's). The most prevalent gas of concern for MSWLF's is methane, due to its potential accumulation at or above the lower explosive limit, as stated in RCRA Subtitle D; and similarly in 20.9.1 NMAC:

40 CFR § 258.23 Explosive gases control (Subtitle D):

(a) Owners or operators of all MSWLF units must ensure that:

(1) The concentration of methane gas generated by the facility does not exceed 25 percent of the lower explosive limit for methane in facility structures (excluding gas control or recovery system components);

(2) The concentration of methane gas does not exceed the lower explosive limit for methane at the facility boundary.

LFG is generated from the decomposition of readily degradable organic material, such as paper and other common household and commercial wastes. The primary by-products, typically comprising over 99% of LFG by volume, are methane and carbon dioxide as stated in USEPA's AP-42 "Emission Factor Documentation" (08/97):

AP 42 – 2.4 Municipal Solid Waste Landfills

2.4.4 Emissions:

Methane (CH_4) and CO_2 are the primary constituents of landfill gas, and are produced by microorganisms within the landfill under anaerobic conditions. Transformations of CH_4 and CO_2 are mediated by microbial populations that are adapted to the cycling of materials in anaerobic environments.

LFG is produced when there is a significant supply of readily degradable organic material, and a sufficient supply of moisture; and a lack of oxygen. Oil field wastes will not provide a suitable environment for LFG production, and over 95% of the projected oil field waste types would be subtracted from the decomposition equation used to demonstrate compliance with EPA and NMED air quality requirements. Typical oil field wastes will not generate significant quantities of LFG, nor the requisite pressure to promote migration. Conventional landfill gas monitoring and control systems would not be necessary or effective, and the waste matrix itself would inhibit migration or collection of landfill gas if it contained 5% degradable organics.

In addition, NMED and EPA do not mandate the installation of LFG controls until the landfill reaches a design capacity of over 3.2 million cubic yards; or if migration is confirmed. Of this volume, typically over 75% is assumed to be organic waste subject to decomposition (as opposed to <1% of oil field waste). A surface waste management facility would need a design capacity of 64 million cubic yards to qualify for landfill gas controls under NMED and USEPA standards. No waste facility contemplated by the proposed Rules or by the realities of New Mexico's oil and gas waste volume approaches these capacities.

Groundwater Separation Distance

In the proposed Rules at Section 53.E(1) the minimum 50 foot separation distance from the base of waste to the groundwater table for landfarms is insufficient in comparison with other regulatory standards. For RCRA Subtitle D landfills with composite liners and leachate collection systems in New Mexico, 100 feet is the minimum:

NMED Solid Waste Regulations (20 NMAC 9.1) Section 302 Siting Criteria for Municipal or Special Waste Landfills:

A. No municipal or special waste landfill shall be location in the following areas:

2. where depth to seasonal high water table will be closer than 100 feet to the bottom of the fill;

Although NMED allows a 50 foot separation for small construction and demolition (C & D) landfills, daily volumes are limited to 25 tons/day (i.e., two truckloads); and waste types must be relatively inert (i.e., concrete). NMED also requires more detailed hydrogeologic data to define the subsurface conditions than those listed in the proposed Rules. In the absence of more detailed lithologic and geotechnical data to define the subsurface, it is reasonable to compare oil field waste disposal to a lined Subtitle D MSW landfill for the presence and monitoring of groundwater, and a 100 foot standard is appropriate.

Other Waste Facility Issues

Mr. Gordon may offer testimony on other waste facility design, operations and permitting issues in response to the technical testimony of other witnesses.

INTENT TO OFFER EXHIBITS

Attached to this letter is an Exhibit List and copies of exhibits CRI may offer at the hearing, pursuant to Rules 1203 and 1204.

INTENT TO CROSS-EXAMINE WITNESSES

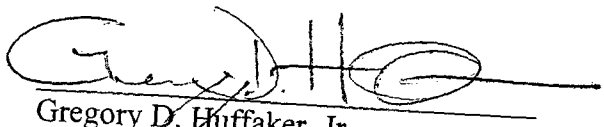
CRI intends to cross-examine witnesses at the hearing.

INTENT TO PRESENT NON-TECHNICAL TESTIMONY

CRI intends to present non-technical testimony through its President, Ken Marsh, and to offer exhibits in connection with his testimony, pursuant to Rule 1204.

Respectfully submitted,

Huffaker & Moffett LLC



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