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January 3, 1997

Mr. James Harris
Thompson & Knight
1700 Pacific Ave.
Dallas, Texas 74201-4693

RE: Response to Proposals of Sparton Technology, Inc. Dated December 6

Dear Jim:

The New Mexico Environment Department (NMED) has reviewed the three proposals dated December 6, 1996 sent by Sparton Technologies, Inc. (Sparton). NMED's response to these proposals is as follows:

Aquifer Testing/Extraction Demonstration/Additions to Monitoring Network

NMED approves this proposal subject to the following conditions and understandings:

- 1) Sparton shall size the pump in the extraction well for the long-term pumping test to pump at a rate greater than 200 gallons per minute. This pump size shall be subject to the approval of NMED. Over the course of the long-term pumping test, Sparton, in conjunction with NMED, shall review the test data collected thus far and determine if a higher pumping rate is necessary in order to confidently demonstrate capture. If it is necessary to increase the pumping rate during the long-term pump test, then the monitoring schedule shall revert to the early-time schedule.

The reason for this condition is that there is a degree of uncertainty as to whether or not a pumping rate of 200 gpm will be sufficient to adequately capture the plume or even detect a drawdown in the more distant wells. Sparton's proposed pump test procedures must have the flexibility built in to analyze the test data in real-time and adjust pumping rates as needed (possibly higher than 200 gpm) in order to insure that

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adequate plume capture can be demonstrated. This aspect of the pumping test has been previously discussed with Sparton.

- 2) Sparton shall install a monitor well nest consisting of at least two sampling intervals instead of the proposed MW-70, in addition to a piezometer. The monitor well nest shall have at least one sampling interval across the water table and one at the lower-most vertical extent of the plume. The piezometer shall be screened just below the water table and shall be located further south on Buckeye Street closer to the extraction well. The location of the piezometer shall be subject to NMED's approval.

The reason for this condition is that at the September 27, 1996 meeting Sparton was asked, and agreed, to install the monitor well nest (either by installing separate wells, a mutli-level well or doing multiple completions in one hole) and the piezometer as described above and set forth in NMED's letter of October 17, 1996. In its December 6 proposal, Sparton proposed only one new monitor well, MW-70, and one piezometer, PZ-2, located next to each other.

- 3) Sparton shall resubmit a contingency plan by January 31, 1997 accounting for the possibility that the pumping test may not demonstrate adequate capture either because the extraction well cannot attain sufficiently high pumping rates or because the results of the test are ambiguous. The contingency plan shall provide for additional pumping tests in the event that this pumping test does not obtain data sufficient to design a plume containment system.

The reasons for this condition are i) the contingency plan in the proposal does not account for an unsuccessful test. The discussion under Condition 1 above describes the uncertainty in the pumping rate required to achieve capture. It is also possible that the extraction well will not be capable of supporting a sufficiently high pumping rate; and ii) the last paragraph on Page 2 of the proposal states that the monitor well network is "capable of showing single-well containment feasibility by demonstrating inward flow (toward the pump test well) across the entire leading edge of the plume". As was discussed at length at the September 27, 1996 meeting, due to the relative sparsity of monitor wells, this statement is true only if the aquifer response approximately adheres to that of a homogeneous and isotropic aquifer so that the geometry of the cone of depression can be inferred.

- 4) Sparton shall submit their written pumping test report no later than 180 days from the date Sparton receives this letter.

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The reason for this condition is that it is important that work at the site proceed within a reasonable time frame. NMED believes that 180 days is an ample amount of time to install the wells, complete the test and prepare a report.

- 5) Sparton shall propose a more frequent and more flexible schedule for measuring more distant observation wells during the long-term pumping test. A change to a less frequent monitoring schedule for any set of wells shall be subject to approval by NMED. Pressure transducers connected to data loggers shall be used in at least 2 close monitor wells to monitor the short-term pumping test.

The reason for this condition is that it is important that relevant water-level data not be missed due to an inadequate measurement schedule. It is unknown how the aquifer will respond to the pumping test and there must be flexibility to allow for unanticipated effects. A more frequent monitoring rate is needed in more distant wells so that a small drawdown can be distinguished from background fluctuations. In order to insure that early-time aquifer response is recorded sufficiently, pressure transducers with data loggers should be used close to the extraction well for the short-term pumping test.

- 6) Sparton shall implement the pumping test proposal, incorporating the conditions set forth in this letter, immediately.

The reasons for this condition are the same as those given in NMED's letter to you dated December 17, 1996. It is important that work progress at the site toward abatement of the imminent and substantial endangerment that currently exists at the site. NMED encourages Sparton to consider all options for long-term disposal of treated water from plume containment including reinjection which NMED believes would be faster and simpler to achieve after this test is completed.

- 7) Sparton understands that NMED views this proposal as a pumping test only. There are several references to a "recovery well" and "containment well" in this proposal. NMED believes these references should be revised to read "test well".
- 8) Sparton understands that approval of this proposal by NMED does not constitute an approval of any set of monitor wells as adequate for performance monitoring of any ground water containment system.

Vapor Extraction System Pilot Testing

NMED approves this proposal subject to the following conditions and understandings:

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- 1) Within 90 days of the date this letter is received by Sparton, Sparton shall submit to NMED a detailed, written pilot-test report. Within 60 days of the date that NMED approves the pilot-test report, Sparton shall submit a proposal for a soil vapor extraction system. This report shall be subject to the approval of NMED.

The reason for this condition is to firmly establish a time frame for Sparton to complete the pilot-test work and to progress toward a much-needed soil vapor extraction system.

- 2) Sparton understands that NMED reserves the right to disapprove the adequacy of Sparton's definition of extent of soil vapor contamination. NMED's approval of the soil vapor extraction pilot test does not constitute an approval of the proposed network of pilot test monitor and extraction wells as suitable for performance monitoring of any future soil vapor extraction system.
- 3) On Page 2 of the proposal, it is stated that "the need for any additional monitoring/characterization data outside the proposed network would be based on a combination of perimeter soil-gas VOC concentrations above 10 ppm...". This should read 10 ppmv instead of 10 ppm.
- 4) Sparton understands that approval of this proposal by NMED does not constitute an approval of any set of vapor monitor wells as adequate for performance monitoring of a final soil vapor extraction system.
- 5) Sparton shall implement the vapor extraction pilot test, incorporating the conditions set forth in this letter, immediately.

Expansion of Interim Measures (IM)

NMED approves this proposal subject to the following conditions and understandings:

- 1) Sparton shall monitor water levels in existing monitor wells in the vicinity of MW-32 and MW-42 before and after these pumping from these wells begins in order to determine the effects on the aquifer by these wells. In addition, Sparton shall monitor the pumping rates of these individual wells and periodically sample and analyze the ground water pumped from these two wells for VOCs. Sparton shall submit a proposal to NMED for approval for this additional work prior to incorporation of these wells into the interim on-site pumping well network.

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The reason for this condition is that no monitoring is proposed by Sparton to determine effects on the aquifer by the increased pumping. This information is important for assessing the effectiveness of the enhanced interim measures.

- 2) In the event that the interim on-site extraction system enhanced by MW-32 and MW-42 cannot achieve a pumping rate of 20 gpm, Sparton shall add one or more wells to the extraction system to achieve a pumping rate of 20 gpm.

The reason for this condition is that until agreement can be reached on the matter of on-site containment, Sparton must insure that the interim containment system is as effective as possible at minimizing ground water contamination.

- 3) Sparton understands that NMED does not agree with the statement on Page 2 of the proposal that "increasing the recovery to 20 gpm is conditioned to the ability to obtain permits to either discharge to the sanitary sewer or, preferably, to discharge to the Calabacillas Arroyo through the existing storm sewer". A reasonable alternative for disposal of this treated water is on-site reinjection via an injection well. The only permit required for this method of disposal is a discharge plan from NMED. There are many sites in New Mexico where treated water is disposed of by reinjection without problems.
- 4) Sparton understands that NMED does not agree with the statement on Page 1 of the proposal that "out of 13 cluster well locations, MW-32 is the bottom well in the only cluster showing an increase in VOC concentration with depth". Well cluster MW-48, MW-55 and MW-56 clearly shows an increasing concentration with depth.

General Conditions of Approval for the three Proposals

NMED's approval of Sparton's three proposals is subject to the following general conditions:

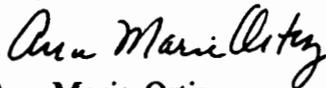
- 1) Sparton shall agree that any discretionary field decisions needed at the time any tests are being conducted are subject to approval by the NMED representative on-site.
- 2) Sparton shall allow NMED to split any soil, soil vapor or ground water samples collected by Sparton. Sparton shall give NMED at least 48 hours notice prior to the collection of any samples.
- 3) Sparton shall submit a copy of all final analytical data and final deliverable reports to NMED.

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- 4) Sparton shall give NMED at least one week prior notice of any drilling activity or of any test to be conducted and shall allow representatives of NMED, ONRT, EPA, the City of Albuquerque and the County of Bernalillo to be present during all phases of drilling and testing.
- 5) Sparton shall use its best efforts to obtain all federal, state, and local approvals necessary to implement the proposals, including, but not limited to, discharge plans, permits and necessary zoning changes.
- 6) Sparton shall treat all extracted water from the pump test and the enhanced interim measures to meet all federal, state and local requirements for pretreatment and disposal.
- 7) Sparton expressly recognizes that NMED reserves the right to disapprove the adequacy or accuracy of the results of any test conducted by Sparton.
- 8) Sparton expressly recognizes that it is NMED's position that the horizontal and vertical definition of the plume has not been fully characterized;
- 9) Sparton expressly recognizes that NMED's approval of any proposal shall not constitute an approval, expressed or implied, of any final remediation or containment system; and
- 10) Sparton expressly recognizes that NMED does not currently consider the on-site interim pump and treat system, even as enhanced by Sparton's proposal, to provide on-site containment of ground water contamination.

If you have any questions, please call me at 505-827-2987.

Very truly yours,



Ana Marie Ortiz
Office of General Council

cc: Mark Weidler, Secretary
Ed Kelley, Division Director
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