TECHLAW, INC.

SUMMARY REVIEW OF TRIASSIC PARK RESPONSES TO FEBRUARY, 1997 NMED NOTICE OF DEFICIENCY DATED JUNE, 1997

Comment 152

The response to this comment is inadequate. See new NOD Comment I-1e(3)(b).

Comment 153

The response to this comment is inadequate. See new NOD Comment I-1e(3)(e).

Comment 154

The response to this comment is adequate. Settlement is briefly discussed.

Comment 155

The response to this comment is adequate. Post-closure maintenance is briefly discussed (see 157).

Comment 156

The response to this comment is adequate. Frost penetration is addressed in the Engineering Report.

Comment 157

The response to this comment is generally adequate. A cover design is provided, although the question of relative permeability is not addressed (it is probably not possible to prove that the cover liner permeability will be less than or equal to that of the bottom liners). The question of drainage from the geocomposite is addressed in new NOD Comment I-1e(3)(e).

Comments 158 - 169

Not in TLI scope of work.

SUMMARY REVIEW OF TRIASSIC PARK
RESPONSES TO FEBRUARY, 1997 NMED NOTICE OF DEFICIENCY
DATED JUNE, 1997

The following summary notes on the responses to the NOD comments considered both the initial responses in the June, 1997 document, and the actual modifications in the revised Part B application dated November, 1998. In many cases, the response appeared to be adequate, but the promised modifications to the application were not made, resulting in classification of the response as inadequate.

Comments 1-23

Not in TLI scope of work.

Comment 24

The response to this comment is inadequate. See new NOD Comment D-1.

Comment 25

The response to this comment is inadequate. See new NOD Comment D-1.

Comment 26

The response to this comment is adequate.

Comment 27

The response to this comment is adequate.

Comment 28

The response to this comment is inadequate. See new NOD Comment D-1a(3).

Comment 29

The response to this comment is adequate.

Comment 30

The response to this comment is adequate.

Comment 31

The response to this comment is adequate.

Comment 32

The response to part a of this comment is adequate. The descriptions of the tanks are provided in Section 2.3.

The responses to parts b and c of this comment is inadequate. See new NOD Comment D-2.

Comment 33

Stabilization Bins: The response to this comment is inadequate. See new NOD Comment D-2a(1).

Truck Wash Tank: The response to this comment is inadequate. See new NOD Comment D-2.

Comment 34

The response to this comment is inadequate. See new NOD Comment D-2.

Comment 35

The response to this comment is inadequate. See new NOD Comment D-2a(2).

Comment 36

The response to this comment is inadequate. See new NOD Comment D-2a(3).

Comment 37

The response to this comment is adequate.

Comment 38

The response to this comment is inadequate. See new NOD Comments D-2 through D-4.

Comment 39

The response to this comment is adequate. Section 2.6.3 of the application has been revised to state that "Hazardous wastes which may be placed in the

evaporation pond include all wastes listed in the Part A application (Volume I), provided that LDR treatment standards are met prior to placing the wastes."

Comment 40

The response to this comment is inadequate. This response references response 136. However, response 136 does not respond to the issues raised in this comment. Response 40b hinted at options of the leachate disposal which are contained in Comment 159 (I-2c). Response 159 states that the plan for discharge of treated leachate is addressed in response 40. However, response 40 does not address this issue. No new NOD comment was generated regarding this issue, since Post-Closure Plan review was not in the TLI scope of work.

Comment 41

The response to part a of this comment is inadequate. A long term exposure test is proposed to be conducted in the response, but is not addressed in the text of the application.

The response to part b of this comment is inadequate. Calculations which define the stresses on the evaporation liner system due to thermal expansion and contraction are provided in Section 4.2.3 of the revised permit application. See new NOD Comment D-4c.

Comment 42

The response to this comment is adequate. Bearing capacity evaluations and related information are provided in the Engineering Report and appendices.

Comment 43

The response to this comment is partially adequate. Detailed material specifications and construction installation specifications are included in Appendix C of the Engineering Report in the revised permit application. Design drawings labeled "not for construction" have also been provided, and a revised CQA plan is included. New NOD comments are provided in the relevant sections of the NOD pertaining to each unit.

Comment 44

The response to this comment is inadequate. The response states that "additional laboratory tests will be conducted on processed siltstone and mudstone samples to confirm their permeability characteristics." However, no results from these laboratory tests were presented in the revised application. See new NOD Comment D-4e(2).

Comment 45

The response to this comment is inadequate. The response indicates that a table previously submitted will be revised to indicate standard test methods used in the analyses for the soil liner material and the depth of sample location. The response also states that "dispersion and piping of the soil will be discussed in the engineering report for the landfill." However, none of this information was presented in the revised application. In addition, the response does not address whether the data presented in Appendices E and F of the original application are representative of the proposed soil liner materials. See new NOD Comment D-4e(2)(a).

Comment 46

The response to this comment is inadequate. The response states that the evaporation pond soil liner compatibility testing will be discussed in the engineering report, and promises to provide most of the information requested. However, none of this information is presented in the engineering report. See new NOD Comment D-4e(2)(b).

Comment 47

The response to this comment is partially adequate. The leak detection system is discussed in Section 4.2.6 of the revised application. See new NOD Comment D-4f(1).

Comment 48

The response to this comment is partially adequate. A conceptual discussion of the methods and equipment that will be used for measuring and recording the volume of liquids present in the sump is presented in Section 6.1.2 of the revised permit application. See new NOD Comment D-4f(7).

Comment 49

The response to this comment is partially adequate. With regard to the clay liner source for the evaporation pond, the application states that material for the evaporation pond compacted soil liner will be siltstone or mudstone obtained during landfill excavation. The response discusses the material's permeability, but states that additional laboratory tests will be conducted on processed siltstone and mudstone samples to confirm their permeability characteristics. See new NOD Comment D-4e(2).

Comment 50

The response to this comment is partially adequate. Discussion of the drainage layer and sump materials for the evaporation pond is presented in Section 2.6.1.2 of the revised application. However, no discussion of the piping material is presented. See new NOD Comment D-4g(1)(c).

Comment 51

The response to this comment is adequate. The information requested is in Appendix C - Construction Specifications.

Comment 52

The response to this comment is adequate. The information requested is now presented in Appendix C of the revised permit application in Specification 02221.

Comment 53

The responses to parts a and b of this comment are adequate. Separate sections are now provided for the clay liner in Appendices B and C

The response to part c of this comment is inadequate. No hydraulic conductivity test or results are provided in the revised permit application. See new NOD Comment D-4e(2).

The response to part d this comment is inadequate. No discussion on particle size of the clay liner is presented in the text of the application. However, Specification 02221, Item 2.01.B.3 states that the clay liner shall have "particles no larger than 2 inches (in largest dimension) after processing but prior to placement and no larger than 1 inch (in largest dimension) after placement and compaction." (This specification is different than indicated in the response.)

The response to part e of this comment is inadequate. References to soil admixing have been deleted from the application, because natural barrow material is believed to meet the permeability requirement. However, the application and Engineering Report do not address the concern in the original comment- that the permeability test results in Appendix E indicate that none of the tested shallow on-site soils provide the required low permeability. The text of the application and response No. 44 argue that the results presented in Appendix E and F "indicate that the unprocessed material has an intact permeability close to $1x10^{-7}$ cm/sec or less," and promise to conduct additional laboratory tests on processed siltstone and mudstone samples to confirm their permeability characteristics. However, no data from additional laboratory tests are presented with the revised application. See new NOD Comment D-4g(3).

The responses to parts f and g of this comment are partially adequate. A test fill plan is presented in Appendix A. However, the absence of adequate permeability data from laboratory testing strongly suggests that there may be problems in constructing clay liners that actually meet the required low permeability in the field. See new NOD Comment D-4g(3).

The response to part h of this comment is partially adequate. Although the response lists reasons for digging Test Pits in the clay liner during construction, the permit application and the relevant sections of the text, specifications, and CQA plan do not contain this information.

The response to part I of this comment is inadequate. See new NOD Comment D-4g(3).

The response to part j of this comment is partially adequate. In Table II-3 in Section II of the CQA Plan, some testing is proposed to occur less frequently than indicated in this comment. See new NOD Comment D-4g(3).

The response to part k of this comment is inadequate. The suggested statement (in the response) that "no waste shall be accepted at the site until NMED has reviewed the certification report" is not included in the application. See new NOD Comment D-4g(3).

Comment 54

The response to this comment is adequate. Discussions of the Action Leak Rate and Response Action Plan are presented in Section 4.2.7 (Volume I), the RAP is in Appendix G, Section 7.0, and the supporting calculations are presented in Appendix G-2, Volume IV. The proposed ALR is the minimum recommended by EPA.

Comment 55

The response to this comment is adequate. See Comment 54 above.

Comment 56

The response to this comment is partially adequate. See new NOD comment D-4(and Comment 54 above.

Comment 57

The response to this comment is inadequate. The statement that "operation of overtopping control systems" will be inspected is still in the text of the application. However, a description of the control systems is not provided. See

new NOD Comment D-4j.

Comment 58

The response to this comment is inadequate. A brief discussion of the availability of sufficient volume for 100 year - 24 hour storm is provided as a response. However, no such discussion is provided in the text of the application. The pond capacity and freeboard calculations are not provided. See new NOD Comment D-4j(3).

Comment 59

The response to this comment is adequate. The response states that "the structural integrity of the evaporation pond subgrade and any structural fill components will be addressed in the engineering report identified in Comment Response 38... In addition, provisions will be stipulated for future re-certifications if subgrade or structural fill conditions change or if the evaporation pond is out of service for longer than six months." As to the berm issue, the application states that "The purpose of the perimeter berm is to provide an anchor for geosynthetics and to provide surface water diversion and is not a structural component of the evaporation pond."

Comment 60

See Comment 59 above.

Comment 61

The response is partially adequate. The revised application provides more details of the proposed design, construction and operation of the landfill than were provided in the original application. See new NOD Comment D-6.

Comment 62

The response is adequate. The list of wastes in the Part A is referenced in Section 2.5.1.1 of the Part B application.

Comment 63

The response is adequate. The revised application (Section 2.5.1) does not include a proposed waiver from double liner requirements.

Comment 64

The response is adequate. (NMED determination.)

Comment 65

The response is adequate. (Not applicable; NMED determination.)

Comment 66

The response is adequate. (NMED determination.)

Comment 67

The response is adequate. (NMED determination.)

Comment 68

The response is partially adequate. Stability analyses for the protective soil cover on the constructed liner are provided in Appendix E-2. See new NOD Comment D-6c(3).

Comment 69

The response is partially adequate. Partial liners system design information is provided in Section 3.1 of the Engineering Report. See new NOD Comment D-6c(4).

Comment 70

The response is partially adequate. The revised application (Appendix C, Geocomposite specification 02710, pages 2 and 5) provides that the geocomposite to be supplied must be capable of withstanding outdoor exposure with no measurable degradation for at least 30 days, and must not be exposed for more than 30 days or the manufacturer's exposure limit (if that is longer). See new NOD Comment D-6c(5).

Comment 71

The response is inadequate. See new NOD Comment D-6d.

Comment 72

The response is adequate. Additional soil sample data is provided in Appendix D.

Comment 73

The response is adequate. Additional soil sample data is provided in Appendix D.

Comment 74

The response is not adequate. See new NOD Comment D-6d.

Comment 75

The response is not adequate. See new NOD Comment D-6d.

Comment 76

The response is not adequate. See new NOD Comment D-6d(4)(b).

Comment 77

The response is not adequate. See new NOD Comment D-6d.

Comment 78

The response is adequate. New material specifications for the liners are included in Appendix C, although the specific manufacturer has not been identified.

Comment 79

The response is not adequate. See new NOD Comment D-6e(1)(a).

Comment 80

The response is not adequate. See new NOD Comments D-6c(3) and D-6e(1)(a).

Comment 81

The response is not adequate. See new NOD Comment D-6e(1)(c).

Comment 82

The response is adequate. GCL specifications are included in Volume IV, Appendix C, Section 02780.

Comment 83

The response is partially adequate. Specifications are provided for the proposed GCL. See new NOD Comment D-6e(2)(b).

Comment 84

The response is inadequate. See new NOD Comment D-6e(2)(b).

Comment 85

The response is adequate. Shear testing of the GCL is reported in Volume V, Appendix D and slope stability calculations are in Appendix E-2.

Comment 86

The response is partially adequate. Partial design details are provided in Section 3.1.3, but only the Phase IA portion of the landfill is included. See new NOD Comment D-6e(2)(c).

Comment 87

The response is not adequate. See new NOD Comment D-6f(1).

Comment 88

The response is partially adequate. Geocomposite transmissivity is described in Section 3.1.3 of the Engineering Report in Volume III, and specifications are included in Appendix C, Section 02710. See new NOD Comment D-6f(2).

Comment 89

The response is partially adequate. Section 3.2.8 and Appendixes G-1 and G-2 provide information and calculations supporting the proposed design. See new NOD Comment D-6f(3).

Comment 90

The response is inadequate. See new NOD Comment D-6f(4).

Comment 91

The response is inadequate. See new NOD Comment D-6f(5).

Comment 92

The response is inadequate. See new NOD Comment D-6c(3).

Comment 93

The response is adequate. Pipe strength is addressed in Appendix E-26.

Comment 94

The response is inadequate. See new NOD Comment D-6f(7).

Comment 95

The response is inadequate. See new NOD Comments D-6f(1) and D-6f(3). (Note: Review of proposed leachate sampling, analysis and subsequent management plans were not included in the TLI scope of work.)

Comment 96

The response is inadequate. See new NOD Comment D-6g.

Comment 97

The response is adequate. Synthetic liner specifications are provided in Appendix C Section 02775.

Comment 98

The response is inadequate. See new NOD Comment D-6g(1)(b).

Comment 99

The response is inadequate. See new NOD Comment D-6g(1)(b).

Comment 100

The response is partially adequate. Uncertified construction specifications are provided as Appendix C of the Engineering Report. See new NOD Comment D-6g(2).

Comment 101

The response is inadequate. See new NOD Comment D-6e(1)(c).

Comment 102

The response is partially adequate. GCL and clay material and construction specifications are provided in Appendix C. See new NOD Comment D-6g(2)(b).

Comment 103

The response is adequate. Geomembrane specifications are included in Appendixes B and C.

Comment 104

The response is inadequate. See new NOD Comment D-6g(2)(d).

Comment 105

The response is partially adequate. The CQA Plan (Appendix B to the Engineering Report) does not include extraneous units or materials which are not proposed for use at the facility. See new NOD Comment D-6g(3).

Comment 106

The response is inadequate. See new NOD Comment D-6g(4).

Comment 107

The response is inadequate. See new NOD Comment D-6g(5).

Comment 108

The response is partially adequate. Action Leakage Rate calculations are provided in Appendix G-1. See new NOD Comment D-6h.

Comment 109

The response is inadequate. See new NOD Comment D-6h(2).

Comment 110

The response is inadequate. See new NOD Comment D-6i(1).

Comment 111

The response is partially adequate. A revised Response Action Plan is provided

(Appendix G-2). See new NOD Comment D-6i(2).

Comment 112

The response is partially adequate. Drainage system design is provided for Phase IA. See new NOD Comment D-6j.

Comment 113

The response is inadequate. See new NOD Comment D-6j.

Comment 114

The response is inadequate. See new NOD Comment D-6j.

Comment 115

The response is inadequate. See new NOD Comment D-6j.

Comment 116

The response is inadequate. See new NOD Comment D-6j.

Comment 117

The response is inadequate. See new NOD Comment D-6j.

Comment 118

The response is inadequate. See new NOD Comment D-6j(3).

Comment 119

The response is partially adequate. Construction and material specifications for soil and geomembrane liner materials are provided, but no plans beyond Phase IA are included. See new NOD Comment D-6j.

Comment 120

The response is inadequate. See new NOD Comment D-6j(5).

Comment 121

The response is inadequate. See new NOD Comment D-6k.

Comment 122

The response is inadequate. See new NOD Comment D-6l.

Comments 123 - 146

Not in TLI scope of work.

Comment 147

The response to part a of this comment is adequate. The confusing statement is still in the application but is explained.

The response to part b of this comment is inadequate. See new NOD Comment I-1(a).

The response to part c of this comment is adequate.

The response to part d of this comment is inadequate. See new NOD Comment I-1(a).

Comment 148

The response to this comment is adequate. The revised closure plan indicates that a maximum of one-third of the total area of the top of the waste fill will require installation of the final cover at the time of facility (final) closure.

Comment 149

The response to this comment is adequate (see 148). Although the closure plan does not request an extension of the maximum time allowed for closure (180 days) for the evap ponds and landfill, the explanation of closure activities appears reasonable.

Comment 150

The response to this comment is adequate. Expanded descriptions of closure work are provided.

Comment 151

The response to this comment is inadequate. See new NOD Comment I-1e(2).