

Appendix A

Title 1 Design Implementation Plan

The attached document defines the scope of work, deliverables, and the schedule to complete Title 1 design activities.

Appendix A

Title 1 Design Implementation Plan

SSSTF Scope of Work Evolution

Preliminary design activities for the SSSTF began in the spring of 1999. The objective of this initial effort was to utilize Fiscal Year 1999 dollars to design and construct a storage building by the close of 2000 with the capability of housing boxed waste presently stored at site CPP-92. The design included a storage building with capacity equaling the footprint of the existing Type II Storage Modules located at the Radioactive Waste Management Complex (RWMC). In addition, an administrative area was included to house personnel necessary to operate the ICDF and SSSTF. Finally, a treatment area with processes to be identified and designed at a later date would be attached to the storage area.

The preconceptual design package was issued in October 1999. Following issuance of the design package, the OU 3-13 Record of Decision was signed and the remedial design/remedial action scope of work prepared. During scoping activities for the RD/RA SOW, the decision was made to include treatment processes in the conceptual design of the SSSTF, rather than design and build a storage building and retrofit treatment processes into an existing building.

During the January 2000 agency meeting in Idaho Falls, Idaho, the agencies directed the project team to view the SSSTF as a complete and comprehensive facility for treatment services of INEEL CERCLA remediation waste. The facility was to be designed to handle low volume anomalous waste not yet defined, but that could be reasonably expected. In addition, the agencies directed the project team to replace thermal treatment with chemical treatment for organic contaminated waste, which represents approximately 35% of the waste requiring treatment. An agreement was reached to expand the ICDF waste inventory database by including D&D debris and tank farm soils. However, the SSSTF conceptual design would utilize the existing waste inventory presented in EDF-ER-072, INEEL CERCLA Disposal Facility Waste Inventory, prepared in July 1999.

During the February 2000 agency meeting in Seattle, Washington, the preconceptual design package was rejected by the agencies because of budget limitations. New direction was given to the project team to scale back the project and provide only treatment processes and facilities necessary to meet the intent of the OU 3-13 Record of Decision. The design is to be completed according to the RD/RA SOW schedule with construction phased to match funding in out years.

The conceptual design presented in this document incorporates the discussions with the agencies during the January and February 2000 meetings. It represents the initial attempt to define the requirements for the SSSTF and is intended to entice dialog with the agencies.

Waste Inventory Development

The waste inventory is a key design parameter needed to move forward with the preliminary design and is in the process of being updated. Inventory data is being compiled into an Oracle database. This database will contain information covering all waste expected to be processed through the SSSTF. The development of the new database architecture is complete which includes the formatting, fields and linkages to allow for report generation capabilities.

All of the required contaminant data have been located, either in the Environmental Restoration Information System (ERIS), in other electronic format, or in hardcopy format. There are contaminant

data in ERIS for about three WAG 1 ICDF candidate sites, eleven WAG 3 ICDF candidate sites, one WAG 4 ICDF candidate site, and four WAG 5 ICDF candidate sites. Contaminant data from the other release sites will come from either the electronic files provided by the WAG managers, scanned hardcopies, or from EDF-ER-149 for the liquid release sites within the INTEC Tank Farm (i.e., CPP-28, -31 and -79).

The waste inventory data are being loaded into the following fields: "Sample Location," "Sample Number," "Release Site," "COPC," "Concentration," "Qualifier," "Sample Date," and "Validation Level." However, "Northing," "Easting," and "Depth" are not consistently identified throughout the available data and "RCRA Waste Codes" will be manually entered, where available. The "Adjusted Contaminated Volume" and "Confidence" will be manually entered into the database, after the contaminant data has been entered.

Contaminant data loading began in late February and focused on importing ERIS/ERIP data, based on the approach outlined during the January 2000 agency meetings. By mid-March, it became evident that the ERIS data were incomplete, difficult to correlate with ICDF candidate release sites, and unavailable in many cases. In mid-March, a "data hunt" was initiated to access the contaminant data directly from the WAG managers. Electronic data from WAGs 1, 5, and 10 was available, however, not all data from WAGs 3 and 4 were available in a usable electronic format (ER OIS images are not usable for importing into the database). The on-going effort is to scan hardcopy pages of these data into Word, proofread and correct the data, then load the data electronically into the database.

30% Design Content

The preliminary design phase will build on the conceptual design and will be complete when approximately 30% of the design work has been completed. An outline of SSSTF preliminary design is provided in Figure A-1, with the design including the following items.

- Technical and functional requirements; this section describes the technical parameters upon which the design is based.
- Process flow diagrams (PFD); this section identifies all process significant components within the treatment trains, the stream properties, and a material and energy balance. Specific items include:
 - Pretreatment requirements
 - Volume and types of waste requiring treatment
 - Treatment schemes
 - Input/output rates of flow streams
 - Influent/effluent qualities of flow streams.
- Major equipment identification; this section will identify the major components of each treatment scheme.
- Operation and maintenance requirements; this section includes a description of the planned O&M requirements that will have a significant impact on the design, such as remote operations and process data logging requirements.

- Design basis/design analysis; this section includes a detailed description of the treatment technologies considered, the analyses conducted, and the decision criteria used to select each treatment scheme.
- Justification of design assumptions; this section will provide the basis for making the necessary design assumptions.
- Status of OU 3-13 Record of Decision Assumptions.
- General arrangement drawings; this section includes preliminary site and utility layout drawings.
- ARARs and permitting considerations; this section will include the specific design features that are planned to achieve compliance with the controlling parameters of each ARAR or substantive permit standard that would otherwise be required.
- Outline of preliminary specifications; this outline details the specifications that will be submitted.
- Identification of unresolved data needs.
- Preliminary cost estimate.

Additional Design Files

The preliminary design will contain several key design decisions. Each decision will be documented in an Engineering Design File (EDF). The EDFs will provide the design basis/design analysis necessary to complete the preliminary design. The decisions are listed below in order of precedence.

1. Waste Inventory Design Basis

This EDF will evaluate the INEEL CERCLA inventory database and determine by remediation site the waste volume, contaminants, and treatment method. This information will be the basis for designing the treatment schemes.

2. Organic Treatment Process Selection.

This EDF will evaluate organic treatment technologies, will provide the decision criteria used to select the preferred alternative, and will provide the engineering analysis needed to complete design.

3. Stabilization and Encapsulation Process

This EDF will evaluate stabilization methods, will provide the decision criteria used to select the preferred method, and will provide the engineering analysis needed to complete design.

4. Waste Transport Study

This EDF will evaluate alternatives for efficiently transporting waste from the remediation site to the SSSTF and will provide the decision criteria for selecting the preferred method or methods.

5. Quality Assurance Process

This EDF will identify waste disposal validation and verification requirements for treated and untreated waste and will evaluate implementation methods.

6. Waste Storage and Staging

This EDF will evaluate the need for indoor waste storage, outdoor waste storage and waste staging to optimize the use of space and equipment.

7. Facility Hazard Classification Analysis

This EDF will document the preliminary hazard classification analysis of proposed operations at the SSSTF.

8. SSSTF/ICDF Operational Scenario

This EDF will describe the operational scenario for movement, treatment, and disposal of waste at the ICDF/SSSTF complex.

9. SSSTF Siting Study

This EDF will evaluate at least three possible sites for the ICDF/SSSTF complex. The study will provide a recommendation for site selection and the criteria used for the selection.

10. Evaporation Pond WAC and Leachate Management

This EDF will determine the ICDF evaporation pond Waste Acceptance Criteria. The study will also determine the recommended pretreatment of liquid not meeting this criteria in preparation for disposal in the evaporation pond.

11. Management and Transport of Noncontact Handled Waste

This EDF will determine the maximum acceptable hazard exposure parameters/criteria for processing noncontact handled waste through the SSSTF/ICDF complex. The study will also define the criteria to be addressed in the design of the SSSTF/ICDF to accomplish this task safely.

Treatability Studies

Following the completion of EDFs on organic treatment process selection and stabilization/encapsulation process definition, treatability studies will be conducted to validate the selected treatment processes and to provide the engineering data necessary to support facility design. The studies will be conducted on waste streams representing the bounding condition for the treatment method. A treatability study work plan will be prepared for each study and will be issued as an FFA/CO secondary document. Each work plan will contain, as a minimum, the following information.

- Test description
- Scope of work
- Test objectives
- Selected waste stream
- Data quality objectives
- Sampling plan
- Cost estimate
- Schedule
- Contracting mechanism.

Unresolved Data Needs

The SSSTF will treat waste to RCRA LDRs and the ICDF Waste Acceptance Criteria (WAC). However, the ICDF WAC is not scheduled for completion until January 2002. While design can proceed regarding treatment methods to meet LDRs, deliberate assumptions concerning ICDF WAC requirements are necessary to proceed with the preliminary design.

The waste inventory is deficient regarding the complete chemical makeup of the soil and waste constituents. This information is needed in order to understand the components in the waste to be oxidized. This data need will be identified as the first data gap of the treatability study work plan.

30% Design Schedule and Deliverables

The schedule for completing the 30% design is attached to this appendix. The table below lists deliverables and delivery dates for 30% design submittals.

Table A-1. Deliverables and target dates.

Document	Target Date	Working Schedule	Enforceable Schedule
EDF-1 Waste Inventory Design Basis	August 30, 2000	NA	NA
EDF-2 Organic Treatment Selection	August 30, 2000	NA	NA
EDF-3 Stabilization/Encapsulation Process	September 13, 2000	NA	NA
EDF-4 Waste Transport Study	September 13, 2000	NA	NA
EDF-5 Quality Assurance Process	August 30, 2000	NA	NA
EDF-6 Waste Storage and Staging	September 25, 2000	NA	NA
EDF-7 Facility Hazards Classification Analysis	August 24, 2000	NA	NA
EDF-8 SSSTF/ICDF Operational Scenario	September 6, 2000	NA	NA
EDF-9 SSSTF Siting Study	August 23, 2000	NA	NA
EDF-10 Evap Pond WAC and Leachate Management	August 23, 2000	NA	NA
EDF-11 Management and Transport of Rad Waste	September 25, 2000	NA	NA
30% Design	November 01, 2000	November 01, 2000	December 06, 2000

Figure A-1. Preliminary Design (30% Remedial Design) for Group 3—Staging, Storage, Sizing, and Treatment Facility.

DISCLAIMER

ABSTRACT

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11. REFERENCES

SSSTF Title I Design Implementation Plan

ID	Task Name	Duration	Start	Finish	Quarter											
					May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
1	SSSTF 30% Design	110d	5/30/00	11/1/00	[Gantt bar from May to Nov]											
2	Begin Design Activities	0d	5/30/00	5/30/00	[Milestone diamond at 5/30]											
3	Prepare AE Work Scope	9d	5/30/00	6/9/00	[Gantt bar from May to Jun]											
4	EDF-1 Waste Inventory Design Basis	57d	6/12/00	8/30/00	[Gantt bar from Jun to Aug]											
5	EDF-1 Preparation	29d	6/12/00	7/21/00	[Gantt bar from Jun to Jul]											
6	EDF-1 IRC Review	11d	7/24/00	8/7/00	[Gantt bar from Jul to Aug]											
7	Resolve Comments & Finalize	14d	8/8/00	8/25/00	[Gantt bar from Aug to Sep]											
8	Sign-off and Print	3d	8/28/00	8/30/00	[Gantt bar from Sep to Sep]											
9	EDF-2 Organic Treatment Process Selection	57d	6/12/00	8/30/00	[Gantt bar from Jun to Sep]											
10	EDF-2 Preparation	29d	6/12/00	7/21/00	[Gantt bar from Jun to Jul]											
11	EDF-2 IRC Review	11d	7/24/00	8/7/00	[Gantt bar from Jul to Aug]											
12	Resolve Comments & Finalize	14d	8/8/00	8/25/00	[Gantt bar from Aug to Sep]											
13	Sign-off and Print	3d	8/28/00	8/30/00	[Gantt bar from Sep to Sep]											
14	EDF-3 Stabilization/Encapsulation Process	56d	6/26/00	9/13/00	[Gantt bar from Jun to Sep]											
15	EDF-3 Preparation	29d	6/26/00	8/4/00	[Gantt bar from Jun to Jul]											
16	EDF-3 IRC Review	11d	8/7/00	8/21/00	[Gantt bar from Aug to Sep]											
17	Resolve Comments & Finalize	13d	8/22/00	9/8/00	[Gantt bar from Sep to Oct]											
18	Sign-off and Print	3d	9/11/00	9/13/00	[Gantt bar from Oct to Oct]											
19	EDF-4 Waste Transport Study	56d	6/26/00	9/13/00	[Gantt bar from Jun to Sep]											
20	EDF-4 Preparation	29d	6/26/00	8/4/00	[Gantt bar from Jun to Jul]											
21	EDF-4 IRC Review	11d	8/7/00	8/21/00	[Gantt bar from Aug to Sep]											

Task
 Progress
 Milestone
 Summary
 Rolled Up Task
 Rolled Up Milestone
 Rolled Up Progress

Project: SSSTF Title I Implementation
Date: 6/26/00

Appendix B

Technical and Functional Requirements

The attached document represents the baseline requirements for the SSSTF. The conceptual design of the facility was based on this set of requirements. This document will be revised as necessary during the subsequent design phase.

TO VIEW APPENDIX B SEE:

DOCUMENT ID NUMBER – TFR-17,DRF REV.0

Appendix C
Cost Estimate

Appendix C

Cost Estimate

Preface:

The cost estimate from the draft submittal of the conceptual design report was not revised to include the revisions to the T&FR's and scope assumptions because of their significant impact to the overall project scope. However, it includes a breakdown of the estimate by work area.

Another, more detailed estimate with operating and maintenance costs, will be developed as part of the 30% design submittal.

INTEROFFICE MEMORANDUM

Date: May 3, 2000

To: R. L. Davison MS 3953 6-3770

From: J. C. Grenz *JCG* MS 3655 6-7175

Subject: STAGING, STORAGE, STABILIZATION, & TREATMENT FACILITY
(SSSTF)

Estimating Services has prepared a Conceptual Cost Estimate for the above subject project. This estimate includes construction directs, indirects, construction procurement support, Quality Assurance, Project Management, PIF, Procurement Fee and G&A. Also attached is a breakdown of the estimate by work area. No G&A or procurement fee is included in that total.

Total Estimated Cost (TEC) \$25,790,000

Please refer to the attached Detail, Recapitulation, and Summary sheets for cost breakdowns, descriptions, and cost estimating basis.

If you have any questions or comment, please contact me at 526-7175.

JG

Attachments

cc: Estimate File 2959-2 *JCG*
J. C. Grenz Letter File (JCG-17-00)

COST ESTIMATE SUPPORT DATA RECAPITULATION

Project Title: STAGING, STORAGE, STABILIZATION, AND TREATMENT FACILITY
(SSSTF)
Estimator: J. C. Grenz
Date: May 3, 2000
Estimate Type: Conceptual
File: 2959-2
Approved By: 

I. **SCOPE OF WORK:** *Brief description of the proposed project.*

The facility is to provide storage for the boxed waste that is inside the INTEC fence, additional containerized waste, and purged water. Storage will be accommodated by enclosed storage for existing boxed waste, exterior storage pads for containerized waste and tanks for the water. A treatment area will be provided to solidify the waste by grouting. An administrative area will be provided to house personnel necessary to operate the facility. Included in this estimate are the following work items.

A. Sitework

- Grading and paving
- Security fence
- Excavation and fill for structures and utilities
- Underground utilities

B. Concrete

- Misc. yard concrete
- Concrete structures

C. Equipment

- Sizing equipment
- Solidification equipment
- Mobile equipment
- Liquid handling and storage equipment

D. Special Construction

- Administrative building
- Fabric structure over process equipment

E. Mechanical

- HVAC for process area
- Above ground utility piping

COST ESTIMATE SUPPORT DATA RECAPITULATION

- Continued -

Project SSSTF
File: 2959-2

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F. Electrical

- Above ground conduit and wire
- Switch gear, MCCs, panels, and starters
- Work area lighting and grounding
- General area lighting

II. **BASIS OF THE ESTIMATE:** *Drawings, Design Report, Engineers Notes and/or other documentation upon which the estimate is originated.*

- A. Conceptual drawings and process descriptions
- B. Block flow diagrams
- C. Conversations with design engineers

III. **ASSUMPTIONS:** *Conditions statements accepted or supposed true without proof of demonstration. An assumption has a direct impact on total estimated cost.*

- A. Construction work to be performed in 2003.
- B. No rock excavation required.
- C. Work will not be broken up into small construction packages. Project will be awarded to one general contractor that is familiar with work at the INEEL.
- D. No contaminated soil will be encountered.
- E. All excavation will be suitable for use as backfill.
- F. See takeoff sheets included in the estimate file for all detailed assumptions on each work item.

IV. **CONTINGENCY GUIDELINE IMPLEMENTATION:** *The percentage used for contingency as determined by the contingency allowance guidelines can be altered to reflect the type of construction and conditions that may impact the total estimated cost.*

A 30% contingency on construction, which includes 10% of construction costs for management reserve, has been included in the estimate. This is within the acceptable range for an estimate at this stage of development. The following concerns were the primary drivers to arrive at this amount.

- Very few drawings exist from which to perform the estimate.
- No design work past flow diagrams has been done.
- Work rules at the INEEL keep changing.

COST ESTIMATE SUPPORT DATA RECAPITULATION

- Continued -

Project SSSTF
File: 2959-2

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V. OTHER COMMENTS/CONCERNS SPECIFIC TO THE ESTIMATE

- A. Costs on the detailed cost sheets are direct costs and do not include overhead, profit or escalation for the construction sub-contractor.
- B. Each major activities cost has been escalated to the midpoint of that activity on the summary sheets.
- C. Building costs are for a complete building. Structural, mechanical, and electrical are all included in the square foot cost.
- D. Utilities from INTEC have been estimated from a Title I design package and are included as one lump sum number. The costs are for construction only.
- E. Provisions have been made in the equipment layouts to accommodate a future chemical treatment, but no costs for chemical treatment have been included in this estimate.

TPC Summary Report 2

Project Name: Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Project Number: 2959-2

ESTIMATE ELEMENT

	<u>Estimate Subtotal</u>	<u>Escalation</u>	<u>Contingency</u>	<u>TOTAL</u>
Total Estimated Cost (TEC)	\$18,487,497	8.93% \$1,650,934	28.04% \$5,647,498	\$25,785,929
Total Project Cost (TPC)	\$18,487,497	8.93% \$1,650,934	28.04% \$5,647,498	\$25,785,929
Rounded TPC (Rounded to the nearest \$ 10000)				\$25,790,000

Type of Estimate: <u>Conceptual</u> Estimator: <u>J. C. Grenz</u> Checked By: <u>[Signature]</u> Approved By: <u>[Signature]</u>	Remarks
---	---------

INEEL

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Project Summary Report

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	CONSTRUCTION MANAGEMENT	Estimate Subtotal	Escalation	Contingency	Contingency %	TOTAL
1000		\$860,011	\$76,799	\$187,362	20.00%	\$1,124,172
1100	--CONSTRUCTION SUPERVISION & ENGINEERING	\$661,013	\$68,135	\$141,830	20.00%	\$850,978
1110	--CM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE	\$208,998	\$18,663	\$45,532	20.00%	\$273,193
3000	TITLE DESIGN	\$1,087,890	\$97,149	\$296,260	25.00%	\$1,481,298
3400	--DESIGN ACTIVITIES	\$1,074,342	\$95,939	\$292,570	25.00%	\$1,462,850
3700	--COST ESTIMATE	\$13,548	\$1,210	\$3,689	25.00%	\$18,447
4000	QUALITY ASSURANCE	\$230,520	\$20,585	\$50,221	20.00%	\$301,327
4100	--QUALITY ASSURANCE	\$230,520	\$20,585	\$50,221	20.00%	\$301,327
5000	PROJECT MANAGEMENT	\$648,316	\$57,895	\$141,242	20.00%	\$847,453
5100	--PM ADMINISTRATION	\$237,161	\$21,178	\$51,668	20.00%	\$310,007
5110	--PM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE	\$32,413	\$2,895	\$7,062	20.00%	\$42,370
5200	--PROJECT CONTROLS	\$219,612	\$19,611	\$47,845	20.00%	\$287,067
5400	--SAFETY ANALYSIS - ES&H	\$102,635	\$9,165	\$22,360	20.00%	\$134,160
5500	--RADIATION CONTROL	\$66,496	\$5,045	\$12,308	20.00%	\$73,849
6000	CONSTRUCTION AE SUPPORT	\$526,856	\$47,048	\$114,781	20.00%	\$688,684
6100	--DISPOSITION OF FIELD PROBLEMS	\$351,237	\$31,365	\$76,520	20.00%	\$459,123
6200	--VENDOR DATA REVIEW	\$175,619	\$15,683	\$38,260	20.00%	\$229,561
9000	CONSTRUCTION	\$14,326,262	\$1,279,335	\$4,681,679	30.00%	\$20,287,276
9100	--CONSTRUCTION SUBCONTRACTS	\$14,326,262	\$1,279,335	\$4,681,679	30.00%	\$20,287,276
9101	---GENERAL CONDITIONS	\$225,536	\$20,141	\$73,703	30.00%	\$319,382
INEEL						

Project Name:
Staging, Storage, Stabilization, and Treatment Facility
 Project Location: *INTEC*
 Estimate Number: *2959-2*

Project Summary Report

Client: *R. L. Davison*
 Prepared By: *J. C. Grenz*
 Estimate Type: *Conceptual*

LEVEL	Estimate Subtotal	Escalation	Contingency	Contingency %	TOTAL
9101.1	\$145,350	\$12,980	\$47,489	30.00%	\$205,828
9101.2	\$80,188	\$7,161	\$26,205	30.00%	\$113,554
9102	\$1,943,724	\$173,575	\$635,190	30.00%	\$2,752,488
9102.01	\$589,752	\$50,879	\$188,189	30.00%	\$808,821
9102.02	\$308,203	\$27,344	\$100,064	30.00%	\$433,612
9102.02	\$341,194	\$30,469	\$111,499	30.00%	\$483,162
9102.02	\$813,087	\$54,749	\$200,351	30.00%	\$1,068,188
9102.03	\$113,487	\$10,134	\$37,086	30.00%	\$160,708
9103	\$1,943,286	\$173,535	\$635,047	30.00%	\$2,751,868
9103.01	\$120,004	\$10,716	\$39,216	30.00%	\$169,937
(103.01	\$253,219	\$22,612	\$82,749	30.00%	\$358,581
9103.02	\$237,525	\$21,211	\$77,621	30.00%	\$336,357
9103.02	\$1,332,538	\$118,998	\$435,480	30.00%	\$1,886,994
9111	\$2,033,991	\$181,835	\$664,688	30.00%	\$2,880,314
9111.01	\$163,288	\$14,582	\$53,381	30.00%	\$231,231
9111.02	\$784,153	\$70,818	\$269,521	30.00%	\$1,124,592
9111.03	\$1,033,254	\$92,270	\$337,657	30.00%	\$1,463,181
9111.04	\$43,288	\$3,868	\$14,149	30.00%	\$61,311
9113	\$2,946,734	\$263,143	\$962,963	30.00%	\$4,172,841
9113.01	\$1,048,076	\$83,593	\$342,501	30.00%	\$1,484,171
9113.02	\$1,178,708	\$105,259	\$385,190	30.00%	\$1,668,156
9113.03	\$719,950	\$64,292	\$235,272	30.00%	\$1,019,514

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Project Summary Report

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Estimate Subtotal	Escalation	Contingency	Contingency %	TOTAL
9114	\$209,523	\$18,710	\$69,470	30.00%	\$296,703
9114.01	\$209,523	\$18,710	\$69,470	30.00%	\$296,703
9115	\$1,689,438	\$150,867	\$552,091	30.00%	\$2,392,393
9115.01	\$1,060,394	\$94,693	\$346,528	30.00%	\$1,501,613
9115.02	\$543,340	\$48,520	\$177,558	30.00%	\$769,418
9115.02	\$85,702	\$7,653	\$28,007	30.00%	\$121,362
9116	\$914,030	\$81,623	\$299,698	30.00%	\$1,294,349
9116.01	\$81,542	\$5,498	\$20,111	30.00%	\$87,149
9116.02	\$122,795	\$10,966	\$40,128	30.00%	\$173,889
9116.04	\$225,650	\$20,151	\$73,740	30.00%	\$319,541
9116.04	\$365,532	\$32,642	\$119,452	30.00%	\$517,626
9116.05	\$98,638	\$8,608	\$32,233	30.00%	\$139,678
9116.05	\$28,749	\$2,567	\$9,395	30.00%	\$40,711
9116.06	\$8,238	\$825	\$3,018	30.00%	\$13,079
9116.06	\$1,890	\$169	\$618	30.00%	\$2,676
9120	\$2,420,000	\$216,106	\$790,832	30.00%	\$3,426,938
GAPIF	\$807,643	\$72,123	\$175,953	20.00%	\$1,055,719
Total SSSTF	\$18,487,497	\$1,650,934	\$5,647,498	28.04%	\$25,785,929

INEEL

Sorted by Code of Accounts

Total Estimated Cost (TEC)

Project Name:
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

CONSTRUCTION DETAIL ITEM REPORT

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
1100 CONSTRUCTION SUPERVISION & ENGINEERING										
00400700	6340	U.C. per Wk	50.00	40 E30	1432	0	0	0	0	1432
		Construction Coordinator or Manager			\$71,600	\$0	\$0	\$0	\$0	\$71,600
00400200	6340	U.C. per Wk	50.00	40 E30	1432	0	0	0	0	1432
		Construction Engineer			\$71,600	\$0	\$0	\$0	\$0	\$71,600
00400400	6340	U.C. per Wk	50.00	20 E30	716	0	0	0	0	716
		ES&H			\$35,800	\$0	\$0	\$0	\$0	\$35,800
00400500	6340	U.C. per Wk	50.00	20 E30	716	0	0	0	0	716
		Quality			\$35,800	\$0	\$0	\$0	\$0	\$35,800
00401400	6340	U.C. per Hour	6,000.00	1 CN-CMINTE	15.14	0	0	0	0	15.14
		Pool Account (Direct Hours @ \$24 Per Hour)			\$90,840	\$0	\$0	\$0	\$0	\$90,840
Subtotal					\$305,640	\$0	\$0	\$0	\$0	\$305,640
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$345,373	\$0	\$0	\$0	\$0	\$345,373
Subtotal Estimate					\$650,978	\$0	\$0	\$0	\$0	\$650,978
Escalation					\$58,135	\$0	\$0	\$0	\$0	\$58,135
Contingency					\$141,830	\$0	\$0	\$0	\$0	\$141,830
Total 1100 CONSTRUCTION SUPERVISION & ENGINEERING			12,000		\$850,978	\$0	\$0	\$0	\$0	\$850,978
1110 CM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE										
Initiate Hazards Analysis Process	6340	U.C. per Lot	1.00	10 E30	358	0	0	0	0	358
					\$358	\$0	\$0	\$0	\$0	\$358
Assemble Planning Team	6340	U.C. per Lot	1.00	50 E30	1780	0	0	0	0	1780
					\$1,780	\$0	\$0	\$0	\$0	\$1,780
Develop Initial JSA & Input To Work Plans	6340	U.C. per Lot	1.00	40 E30	1432	0	0	0	0	1432
					\$1,432	\$0	\$0	\$0	\$0	\$1,432
Project Continuous Surveillance (2 Hours / Day)	6340	U.C. per Wk	50.00	400 E30	286.4	0	0	0	0	286.4
					\$14,320	\$0	\$0	\$0	\$0	\$14,320
Prepare Supporting Project Documents	6340	U.C. per Lot	1.00	25 E30	895	0	0	0	0	895
					\$895	\$0	\$0	\$0	\$0	\$895
Develop Work Order	6340	U.C. per Lot	1.00	40 E30	1432	0	0	0	0	1432
					\$1,432	\$0	\$0	\$0	\$0	\$1,432
Approve Work Orders - Subject Matter Expert (SME) (5 Hours / SME)	6340	U.C. per SME	1.00	5 E30	179	0	0	0	0	179
					\$179	\$0	\$0	\$0	\$0	\$179
Approve Work Orders - CM	6340	U.C. per Lot	1.00	5 E30	179	0	0	0	0	179
					\$179	\$0	\$0	\$0	\$0	\$179

CONSTRUCTION DETAIL ITEM REPORT

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
1110 CM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE										
	Schedule Work On POD (1 Hour / Day)	U.C. per Wk	4	E30 \$35.80	143.2 \$7,160	0 \$0	0 \$0	0 \$0	0 \$0	143.2 \$7,160
	Outages (20 Hours / Outage)	U.C. per Ea	20	E30 \$35.80	716 \$35,800	0 \$0	0 \$0	0 \$0	0 \$0	716 \$35,800
	Subsurface Investigation (20 Hours / Si)	U.C. per Ea	20	E30 \$35.80	716 \$4,296	0 \$0	0 \$0	0 \$0	0 \$0	716 \$4,296
	Pool Account (Direct Hours @ \$24 Per Hour)	U.C. per Hour	1	CN-CMINTE \$15.14	15.14 \$30,280	0 \$0	0 \$0	0 \$0	0 \$0	15.14 \$30,280
	Subtotal				\$98,121	\$0	\$0	\$0	\$0	\$98,121
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL ORG Labor/Subcontractor Overheads				\$110,877	\$0	\$0	\$0	\$0	\$110,877
	Subtotal Estimate				\$208,998	\$0	\$0	\$0	\$0	\$208,998
	Escalation				\$18,863	\$0	\$0	\$0	\$0	\$18,863
	Contingency				\$45,632	\$0	\$0	\$0	\$0	\$45,632
	Total 1110 CM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE		3,895		\$273,193	\$0	\$0	\$0	\$0	\$273,193
3400 DESIGN ACTIVITIES										
Memo: Technical activities including calculations, (EDFs), internal peer reviews, specifications, etc.										
00101000	Site Vicinity Map	U.C. per Drwg	4	E04 \$32.14	128.56 \$257	0 \$0	0 \$0	0 \$0	0 \$0	128.56 \$257
6710	Civil Design including design, drafting, specification, calculations, reviews	U.C. per Drwg	50	E04 \$32.14	1607 \$32,140	0 \$0	0 \$0	0 \$0	0 \$0	1607 \$32,140
00102000	Structural Design	U.C. per Drwg	50	E23 \$38.03	1901.5 \$38,030	0 \$0	0 \$0	0 \$0	0 \$0	1901.5 \$38,030
00103000	Architectural Design	U.C. per Drwg	50	E23 \$38.03	1901.5 \$38,030	0 \$0	0 \$0	0 \$0	0 \$0	1901.5 \$38,030
00104000	Process or Equipment Design	U.C. per Drwg	50	E11 \$32.98	1649 \$49,470	0 \$0	0 \$0	0 \$0	0 \$0	1649 \$49,470
00105000	HVAC Design	U.C. per Drwg	50	E11 \$32.98	1649 \$32,980	0 \$0	0 \$0	0 \$0	0 \$0	1649 \$32,980
00106000	Piping Design	U.C. per Drwg	50	E11 \$32.98	1649 \$32,980	0 \$0	0 \$0	0 \$0	0 \$0	1649 \$32,980
00107000	Fire Protection Design	U.C. per Drwg	50	E11 \$32.98	1649 \$32,980	0 \$0	0 \$0	0 \$0	0 \$0	1649 \$32,980

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
--- 3400 DESIGN ACTIVITIES										
<i>Memo: Technical activities including calculations, (EDFs), Internal peer reviews, specifications, etc.</i>										
00106000	6710	U.C. per Drwg	40.00	50 E11	1848	0	0	0	0	1848
Instrumentation Design					\$65,960	\$0	\$0	\$0	\$0	\$65,960
00109000	6710	U.C. per Drwg	30.00	50 E06	1756	0	0	0	0	1756
Electrical Design					\$52,680	\$0	\$0	\$0	\$0	\$52,680
Special Studies	6710	U.C. per Ea	10.00	160 E11	5276.8	0	0	0	0	5276.8
					\$52,768	\$0	\$0	\$0	\$0	\$52,768
Peer review	6710	U.C. per Ls	500.00	1 E11	32.98	0	0	0	0	32.98
					\$16,490	\$0	\$0	\$0	\$0	\$16,490
Design Supervision @ 11.5%	6710	U.C. per Hr	13,000.00	0.115 Z09	4.588	0	0	0	0	4.588
					\$59,621	\$0	\$0	\$0	\$0	\$59,621
Subtotal					\$504,388	\$0	\$0	\$0	\$0	\$504,388
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$569,956	\$0	\$0	\$0	\$0	\$569,956
Subtotal Estimate					\$1,074,342	\$0	\$0	\$0	\$0	\$1,074,342
Escalation					\$85,939	\$0	\$0	\$0	\$0	\$85,939
Contingency					\$292,570	\$0	\$0	\$0	\$0	\$292,570
--- Total 3400 DESIGN ACTIVITIES			14,803		\$1,462,850	\$0	\$0	\$0	\$0	\$1,462,850
--- 3700 COST ESTIMATE										
<i>Memo: Estimating services during design.</i>										
Cost Estimate - Title II / AFC	2240	U.C. per Hr	200.00	1 F22	31.44	0	0	0	0	31.44
					\$6,288	\$0	\$0	\$0	\$0	\$6,288
Cost Estimating Management Support - 14% Of Estimating	2240	U.C. per Hr	200.00	0.14 F22	4.402	0	0	0	0	4.402
Total					\$860	\$0	\$0	\$0	\$0	\$860
Subtotal					\$7,168	\$0	\$0	\$0	\$0	\$7,168
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$6,380	\$0	\$0	\$0	\$0	\$6,380
Subtotal Estimate					\$13,548	\$0	\$0	\$0	\$0	\$13,548
Escalation					\$1,210	\$0	\$0	\$0	\$0	\$1,210
Contingency					\$3,689	\$0	\$0	\$0	\$0	\$3,689
--- Total 3700 COST ESTIMATE			228		\$18,447	\$0	\$0	\$0	\$0	\$18,447
--- 4100 QUALITY ASSURANCE										
<i>Memo: All Quality Engineering actions and inspections-related activities during the execution and start-up phases of a project.</i>										
00201000	7280	U.C. per Wk	50.00	40 T12	1000.4	0	0	0	0	1000.4
Inspection and Overview					\$50,020	\$0	\$0	\$0	\$0	\$50,020

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const	Eqp	Matl	S/C	Other	TOTAL
4100 QUALITY ASSURANCE											
<i>Memo: All Quality Engineering actions and inspections-related actions that are required to plan and perform surveillance-related activities during the execution and start-up phases of a project.</i>											
00203000	7280	U.C. per Wk	40	T12	1000.4	0	0	0	0	0	1000.4
Vendor Data Review and Field Problems		50.00	2,000	\$25.01	\$50,020	\$0	\$0	\$0	\$0	\$0	\$50,020
00205000	7280	U.C. per Ea	40	T12	1000.4	0	0	0	0	0	1000.4
Inspection Plan Preparation		1.00	40	\$25.01	\$1,000	\$0	\$0	\$0	\$0	\$0	\$1,000
Quality Assurance Supervision @ 10%	7280	U.C. per Hr	0.1	Z03	5.232	0	0	0	0	0	5.232
		4,000.00	400	\$52.32	\$20,928	\$0	\$0	\$0	\$0	\$0	\$20,928
Subtotal					\$121,988	\$0	\$0	\$0	\$0	\$0	\$121,988
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$108,652	\$0	\$0	\$0	\$0	\$0	\$108,652
Subtotal Estimate					\$20,685	\$0	\$0	\$0	\$0	\$0	\$20,685
Escalation					\$50,221	\$0	\$0	\$0	\$0	\$0	\$50,221
Contingency					\$301,327	\$0	\$0	\$0	\$0	\$0	\$301,327
4,440											
5100 PM ADMINISTRATION											
Project Manager Design	6210	U.C. per Wk	20	E30	716	0	0	0	0	0	716
		50.00	1,000	\$35.80	\$35,800	\$0	\$0	\$0	\$0	\$0	\$35,800
Project Manager Const	6210	U.C. per Wk	40	E30	1432	0	0	0	0	0	1432
		50.00	2,000	\$35.80	\$71,800	\$0	\$0	\$0	\$0	\$0	\$71,800
Project Management - Management Support - 10% Of P.M.	6210	U.C. per Hr	0.1	Z04	4.929	0	0	0	0	0	4.929
Total		800.00	80	\$49.29	\$3,943	\$0	\$0	\$0	\$0	\$0	\$3,943
Subtotal					\$111,343	\$0	\$0	\$0	\$0	\$0	\$111,343
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$125,818	\$0	\$0	\$0	\$0	\$0	\$125,818
Subtotal Estimate					\$21,178	\$0	\$0	\$0	\$0	\$0	\$21,178
Escalation					\$51,668	\$0	\$0	\$0	\$0	\$0	\$51,668
Contingency					\$310,007	\$0	\$0	\$0	\$0	\$0	\$310,007
3,080											
5110 PM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE											
Assemble Planning Team	6210	U.C. per Lot	40	E30	1432	0	0	0	0	0	1432
		1.00	40	\$35.80	\$1,432	\$0	\$0	\$0	\$0	\$0	\$1,432
Initiate Work Control Form (WCF)	6210	U.C. per Ea	10	E30	358	0	0	0	0	0	358
		1.00	10	\$35.80	\$358	\$0	\$0	\$0	\$0	\$0	\$358

Project Name: **Slaging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

CONSTRUCTION DETAIL ITEM REPORT

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
5110 PM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE										
Update WCF (1 Hour / Day)	6210	U.C. per Wk	50.00	4 E30 \$35.80	143.2	0	0	0	0	143.2
					\$7,160	\$0	\$0	\$0	\$0	\$7,160
Inillate Hazards Analysis Process	6210	U.C. per Lot	1.00	40 E30 \$35.80	1432	0	0	0	0	1432
					\$1,432	\$0	\$0	\$0	\$0	\$1,432
Prepare Supporting Project Documents	6210	U.C. per Lot	1.00	40 E30 \$35.80	1432	0	0	0	0	1432
					\$1,432	\$0	\$0	\$0	\$0	\$1,432
Post-Job Review	6210	U.C. per Ea	1.00	40 E30 \$35.80	1432	0	0	0	0	1432
					\$1,432	\$0	\$0	\$0	\$0	\$1,432
PM Management Support - 10% Of Total	6210	U.C. per Hr	400.00	0.1 Z04 \$49.29	4.929	0	0	0	0	4.929
					\$1,972	\$0	\$0	\$0	\$0	\$1,972
Subtotal					\$15,218	\$0	\$0	\$0	\$0	\$15,218
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$17,196	\$0	\$0	\$0	\$0	\$17,196
Subtotal Estimate					\$2,895	\$0	\$0	\$0	\$0	\$2,895
Escalation					\$7,062	\$0	\$0	\$0	\$0	\$7,062
Contingency					\$42,370	\$0	\$0	\$0	\$0	\$42,370
Total 5110 PM - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE			410							
5200 PROJECT CONTROLS										
<i>Memo: Cost and schedule control activities for the project (dedicated personnel only; non-dedicated personnel charge to Operating Costs)</i>										
Construction schedule	6340	U.C. per Mo	18.00	80 E30 \$35.80	2884	0	0	0	0	2884
					\$51,552	\$0	\$0	\$0	\$0	\$51,552
Cost reporting	6340	U.C. per Mo	18.00	80 E30 \$35.80	2884	0	0	0	0	2884
					\$51,552	\$0	\$0	\$0	\$0	\$51,552
Subtotal					\$103,104	\$0	\$0	\$0	\$0	\$103,104
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$116,508	\$0	\$0	\$0	\$0	\$116,508
Subtotal Estimate					\$19,611	\$0	\$0	\$0	\$0	\$19,611
Escalation					\$47,845	\$0	\$0	\$0	\$0	\$47,845
Contingency					\$287,067	\$0	\$0	\$0	\$0	\$287,067
Total 5200 PROJECT CONTROLS			2,880							
5400 SAFETY ANALYSIS - ES&H										
<i>Memo: FSAR preparation and review.</i>										
Environmental Safety & Health	7100	U.C. per Wk	50.00	40 T16 \$21.92	876.8	0	0	0	0	876.8
					\$43,840	\$0	\$0	\$0	\$0	\$43,840

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEL**
 Estimate Number: **20100**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
6400 SAFETY ANALYSIS - ES&H										
Memo: FSAR preparation and review.										
7120										
U.C. per Hr 2,000.00 0.1 Z03 52.32 5.232 0 0 0 0 5.232										
ES&H Management Support - 10% Of ES&H Total \$10,484 \$0 \$0 \$0 \$10,484										
Subtotal										
Sales Tax \$54,304 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$54,304										
INEEL ORG Labor/Subcontractor Overheads \$48,331 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$48,331										
Subtotal Estimate										
Escalation \$9,165 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$9,165										
Contingency \$22,360 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$22,360										
--Total 6400 SAFETY ANALYSIS - ES&H										
2,200 \$134,160 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$134,160										
5500 RADIATION CONTROL										
7620										
U.C. per Wk 50.00 20 U80 24.88 483.2 0 0 0 0 483.2										
Radiological Control Technicians \$24,860 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$24,860										
7610										
U.C. per Hr 1,000.00 0.1 Z03 52.32 5.232 0 0 0 0 5.232										
Radiation Control - Management Support - 10% OF RCT \$5,232 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,232										
Total										
100 \$5,232 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,232										
Subtotal										
Sales Tax \$29,892 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$29,892										
INEEL ORG Labor/Subcontractor Overheads \$28,604 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$28,604										
Subtotal Estimate										
Escalation \$5,011 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$5,011										
Contingency \$12,308 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$12,308										
--Total 5500 RADIATION CONTROL										
1,100 \$73,849 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$73,849										
6100 DISPOSITION OF FIELD PROBLEMS										
6710										
U.C. per Ea 1,000.00 5 E11 32.98 164.9 0 0 0 0 164.9										
Const Interface Doc (CIU) \$164,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$164,900										
Subtotal										
Sales Tax \$164,900 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$164,900										
INEEL ORG Labor/Subcontractor Overheads \$186,337 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$186,337										
Subtotal Estimate										
Escalation \$31,365 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$31,365										
Contingency \$76,520 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$76,520										
--Total 6100 DISPOSITION OF FIELD PROBLEMS										
5,000 \$459,123 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$459,123										
6200 VENDOR DATA REVIEW										
6710										
U.C. per Ea 500.00 5 E11 32.98 164.9 0 0 0 0 164.9										
V. D. on Material & Eq \$62,450 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$62,450										

Project Name: Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

CONSTRUCTION DETAIL ITEM REPORT

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
6200 VENDOR DATA REVIEW										
	Subtotal				\$82,450	\$0	\$0	\$0	\$0	\$82,450
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL ORG Labor/Subcontractor Overheads				\$93,169	\$0	\$0	\$0	\$0	\$93,169
	Subtotal Estimate				\$15,683	\$0	\$0	\$0	\$0	\$15,683
	Escalation				\$38,260	\$0	\$0	\$0	\$0	\$38,260
	Contingency				\$229,561	\$0	\$0	\$0	\$0	\$229,561
Total 6200 VENDOR DATA REVIEW										
			2,500							
9101.1 GENERAL CONDITIONS										
	Supervision	50.00	40	CN-SUPR	1800	0	0	0	0	1800
			2,000	\$40.00	\$80,000	\$0	\$0	\$0	\$0	\$80,000
	Training	20.00	4	CN-LABR	120.36	0	0	0	0	120.36
			80	\$30.09	\$2,407	\$0	\$0	\$0	\$0	\$2,407
	Mobilization & Demobilization	1.00	0	CN-LABR	0	20000	0	0	0	20000
					\$0	\$20,000	\$0	\$0	\$0	\$20,000
	Subtotal				\$82,407	\$20,000	\$0	\$0	\$0	\$102,407
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL ORG Labor/Subcontractor Overheads				\$34,556	\$8,387	\$0	\$0	\$0	\$42,942
	Subtotal Estimate				\$10,445	\$2,535	\$0	\$0	\$0	\$12,980
	Escalation				\$38,222	\$9,276	\$0	\$0	\$0	\$47,498
	Contingency				\$165,630	\$40,198	\$0	\$0	\$0	\$205,828
Total 9101.1 GENERAL CONDITIONS										
			2,080							
9101.2 GC - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE										
	Added Supervision	50.00	10	CN-SUPR	400	0	0	0	0	400
			500	\$40.00	\$20,000	\$0	\$0	\$0	\$0	\$20,000
	Additional Training	20.00	4	CN-LABR	120.36	0	0	0	0	120.36
			80	\$30.09	\$2,407	\$0	\$0	\$0	\$0	\$2,407
	Labor Impact - 5%	20,000.00	0.05	CN-LABR	1,505	0	0	0	0	1,505
			1,000	\$30.09	\$30,090	\$0	\$0	\$0	\$0	\$30,090

CONSTRUCTION DETAIL ITEM REPORT

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
9101.2 GC - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE										
Post Job Review	GEN	U.C. per Hr	10.00	10 CN-SUPR \$40.00	400	\$0	\$0	\$0	\$0	\$4,000
Subtotal					\$58,497	\$0	\$0	\$0	\$0	\$58,497
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$23,091	\$0	\$0	\$0	\$0	\$23,091
Subtotal Estimate					\$7,161	\$0	\$0	\$0	\$0	\$7,161
Escalation					\$28,205	\$0	\$0	\$0	\$0	\$28,205
Contingency					\$113,554	\$0	\$0	\$0	\$0	\$113,554
--- Total 9101.2 GC - CONDUCT OF OPERATIONS/CONDUCT OF MAINTENANCE										
9102.01 Grading & Paving										
Clearing & Grubbing	GEN	U.C. per Ac	10.00	0	150	140	0	0	0	290
					\$1,500	\$1,400	\$0	\$0	\$0	\$2,900
Site grading	GEN	U.C. per SY	30,000.00	0	0.2	0.3	0	0	0	0.5
					\$6,000	\$9,000	\$0	\$0	\$0	\$15,000
Paving binder course	SPEC	U.C. per SY	30,000.00	0	0.5	0.4	5.2	0	0	6.1
					\$15,000	\$12,000	\$156,000	\$0	\$0	\$183,000
Paving wear course	SPEC	U.C. per SY	30,000.00	0	0.35	0.3	3.15	0	0	3.8
					\$10,500	\$9,000	\$94,500	\$0	\$0	\$114,000
Security fence	SPEC	U.C. per Lf	2,500.00	0	4	2	9	0	0	15
					\$10,000	\$5,000	\$22,500	\$0	\$0	\$37,500
Subtotal					\$43,000	\$36,400	\$273,000	\$0	\$0	\$352,400
Sales Tax					\$0	\$0	\$13,650	\$0	\$0	\$13,650
INEEL ORG Labor/Subcontractor Overheads					\$23,151	\$19,013	\$161,539	\$0	\$0	\$203,702
Subtotal Estimate					\$5,907	\$4,948	\$40,023	\$0	\$0	\$50,879
Escalation					\$21,617	\$18,108	\$146,464	\$0	\$0	\$186,189
Contingency					\$93,876	\$78,470	\$634,676	\$0	\$0	\$806,821
--- Total 9102.01 Grading & Paving										
9102.02 Exc & Fill for Process										
Truck dump ex	GEN	U.C. per cy	10,020.00	0	1.85	1.95	0	0	0	3.8
					\$18,537	\$19,539	\$0	\$0	\$0	\$38,076
Truck dump backfill	GEN	U.C. per cy	10,020.00	0	14.8	1.45	0	0	0	16.25
					\$148,286	\$14,529	\$0	\$0	\$0	\$162,825
Stack fdn ex	GEN	U.C. per cy	120.00	0	1.85	1.95	0	0	0	3.8
					\$222	\$234	\$0	\$0	\$0	\$456

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
--- 9102.02 Ex & Fill for Process										
	GEN									
Slack fdn backfill		U.C. per cy	120.00	0	14.8 \$1,776	1.45 \$174	0 \$0	0 \$0	0 \$0	16.25 \$1,950
Box dump ex	GEN	U.C. per cy	620.00	0	1.85 \$1,147	1.95 \$1,209	0 \$0	0 \$0	0 \$0	3.8 \$2,356
Box dump backfill	GEN	U.C. per cy	620.00	0	14.8 \$9,176	1.45 \$899	0 \$0	0 \$0	0 \$0	16.25 \$10,075
Subtotal										
Sales Tax					\$179,154	\$36,584	\$0	\$0	\$0	\$215,738
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$0	\$0	\$0	\$0
					\$76,125	\$16,341	\$0	\$0	\$0	\$90,466
Subtotal Estimate										
Escalation					\$22,707	\$4,637	\$0	\$0	\$0	\$27,344
Contingency					\$83,096	\$16,988	\$0	\$0	\$0	\$100,084
--- Total 9102.02 Ex & Fill for Process										
			0		\$360,081	\$73,630	\$0	\$0	\$0	\$433,612
--- 9102.02 Ex & Fill for Pads										
	GEN									
Sump ex		U.C. per cy	2,700.00	0	1.85 \$4,995	1.95 \$5,285	0 \$0	0 \$0	0 \$0	3.8 \$10,280
Sump backfill	GEN	U.C. per cy	2,700.00	0	14.8 \$39,960	1.45 \$3,915	0 \$0	0 \$0	0 \$0	16.25 \$43,875
Truck scales ex	GEN	U.C. per cy	1,120.00	0	1.85 \$2,072	1.95 \$2,184	0 \$0	0 \$0	0 \$0	3.8 \$4,256
Truck scales backfill	GEN	U.C. per cy	11,200.00	0	14.8 \$165,760	1.45 \$16,240	0 \$0	0 \$0	0 \$0	16.25 \$182,000
Subtotal										
Sales Tax					\$212,787	\$27,604	\$0	\$0	\$0	\$240,391
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$0	\$0	\$0	\$0
					\$89,228	\$11,575	\$0	\$0	\$0	\$100,803
Subtotal Estimate										
Escalation					\$28,870	\$3,499	\$0	\$0	\$0	\$341,194
Contingency					\$98,695	\$12,803	\$0	\$0	\$0	\$30,498
--- Total 9102.02 Ex & Fill for Pads										
			0		\$427,680	\$55,481	\$0	\$0	\$0	\$483,162
--- 9102.02 Ex & Fill for Infra										
	GEN									
Duckbank ex		U.C. per cy	1,075.00	0	1.95 \$2,096	1.45 \$1,558	0 \$0	0 \$0	0 \$0	3.4 \$3,655
Duckbank backfill	GEN	U.C. per cy	1,075.00	0	19.8 \$21,285	0 \$0	0 \$0	0 \$0	0 \$0	19.8 \$21,285

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
9102.02 Ex & Fill for Infr										
Pipe trench ex	GEN	20,300.00	0		1.65 \$37,555	1.95 \$39,585	0 \$0	0 \$0	0 \$0	3.8 \$77,140
Pipe trench backfill	GEN	20,300.00	0		14.8 \$300,440	1.45 \$29,435	0 \$0	0 \$0	0 \$0	16.25 \$329,875
Subtotal					\$381,376	\$70,579	\$0	\$0	\$0	\$431,955
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$151,536	\$28,586	\$0	\$0	\$0	\$181,132
Subtotal Estimate					\$45,803	\$8,946	\$0	\$0	\$0	\$54,749
Escalator					\$197,615	\$32,736	\$0	\$0	\$0	\$200,351
Contingency					\$726,330	\$141,856	\$0	\$0	\$0	\$868,186
9102.03 U. G. UTILITIES										
Ducibank (power)	ELEC	550.00	0		7.1 \$3,905	0 \$0	6.6 \$3,630	0 \$0	0 \$0	13.7 \$7,535
Ducibank (comm)	ELEC	550.00	0		1.9 \$1,045	0 \$0	1.05 \$908	0 \$0	0 \$0	3.55 \$1,953
Ducibank (area lights)	ELEC	2,000.00	0		1.6 \$3,200	0 \$0	1.16 \$2,300	0 \$0	0 \$0	2.75 \$5,500
Fire pipe	FP	450.00	0		5.65 \$2,543	2 \$900	13 \$5,850	0 \$0	0 \$0	20.65 \$9,293
Fire hydrants	FP	10.00	0		140 \$1,400	30 \$300	1250 \$12,500	0 \$0	0 \$0	1420 \$14,200
Sewer pipe	GEN	450.00	0		2.9 \$1,305	0 \$0	2.9 \$1,305	0 \$0	0 \$0	5.8 \$2,610
Water pipe	GEN	900.00	0		2 \$1,800	0 \$0	1.25 \$1,125	0 \$0	0 \$0	3.25 \$2,925
Storm drain (12")	GEN	500.00	0		5 \$2,500	1.05 \$525	12.4 \$6,200	0 \$0	0 \$0	18.45 \$9,225
Storm drain (24")	GEN	370.00	0		6.6 \$2,442	1.35 \$600	25.5 \$9,435	0 \$0	0 \$0	33.45 \$12,377

CONSTRUCTION DETAIL ITEM REPORT

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
--- 9102.03 U. G. Utilities										
	GEN	U.C. per lf	150.00	0	10.5 \$1,575	6.55 \$983	47 \$7,050	0 \$0	0 \$0	64.05 \$9,608
Storm drain (36")										
Subtotal										
Sales Tax					\$21,715	\$3,207	\$50,303	\$0	\$0	\$75,224
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$2,515	\$0	\$0	\$2,515
					\$9,614	\$1,500	\$24,634	\$0	\$0	\$35,748
Subtotal Estimate										
Escalation					\$2,798	\$420	\$8,918	\$0	\$0	\$10,134
Contingency					\$10,238	\$1,538	\$25,310	\$0	\$0	\$37,086
--- Total 9102.03 U. G. Utilities										
			0		\$44,364	\$6,865	\$109,679	\$0	\$0	\$160,708
--- 9103.01 Misc Yard Conc for Process										
	GEN	U.C. per cy	16.00	0	230 \$3,680	0 \$0	150 \$2,400	0 \$0	0 \$0	380 \$6,080
Belt conveyor footings										
Airslide conveyor footings										
			8.00	0	230 \$1,840	0 \$0	150 \$1,200	0 \$0	0 \$0	380 \$3,040
Silo footings										
			16.00	0	230 \$3,680	0 \$0	150 \$2,400	0 \$0	0 \$0	380 \$6,080
Process structure fdn										
			200.00	0	150 \$30,000	0 \$0	150 \$30,000	0 \$0	0 \$0	300 \$60,000
Stack foundation										
			20.00	0	200 \$4,000	20 \$400	150 \$3,000	0 \$0	0 \$0	370 \$7,400
Subtotal										
Sales Tax					\$43,200	\$400	\$39,000	\$0	\$0	\$82,600
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$1,950	\$0	\$0	\$1,950
					\$18,115	\$188	\$17,172	\$0	\$0	\$35,454
Subtotal Estimate										
Escalation					\$5,475	\$51	\$5,190	\$0	\$0	\$10,716
Contingency					\$20,037	\$186	\$18,994	\$0	\$0	\$39,216
--- Total 9103.01 Misc Yard Conc for Process										
			0		\$86,828	\$804	\$82,305	\$0	\$0	\$169,937
--- (103.01 Misc Yard Conc for Infa										
	GEN	U.C. per cy	10.00	0	230 \$2,300	0 \$0	150 \$1,600	0 \$0	0 \$0	380 \$3,600
Light pole bases										
Duct bank concrete										
			640.00	0	150 \$96,000	0 \$0	110 \$70,400	0 \$0	0 \$0	280 \$166,400

CONSTRUCTION DETAIL ITEM REPORT

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
103.01 Misc Yard Conc for Infa										
	GEN	U.C. per cy	15.00	0	150	0	150	0	0	300
	Main transformer pad				\$2,250	\$0	\$2,250	\$0	\$0	\$4,600
Subtotal										
	Sales Tax				\$100,550	\$0	\$74,150	\$0	\$0	\$174,700
	INEEL ORG Labor/Subcontractor Overheads				\$0	\$0	\$3,708	\$0	\$0	\$3,708
					\$42,184	\$0	\$32,648	\$0	\$0	\$74,832
Subtotal Estimate										
	Escalation				\$12,744	\$0	\$9,888	\$0	\$0	\$22,632
	Contingency				\$46,637	\$0	\$36,112	\$0	\$0	\$82,749
	Total 103.01 Misc Yard Conc for Infa		0		\$202,095	\$0	\$166,486	\$0	\$0	\$368,581
103.02 Process Structures										
	GEN	U.C. per cy	285.00	0	250	50	200	0	0	500
	Truck dump/crusher				\$86,250	\$13,250	\$53,000	\$0	\$0	\$132,500
Subtotal										
	Sales Tax				\$83,750	\$13,250	\$67,000	\$0	\$0	\$164,000
	INEEL ORG Labor/Subcontractor Overheads				\$35,119	\$5,556	\$29,500	\$0	\$0	\$70,175
Subtotal Estimate										
	Escalation				\$10,816	\$1,679	\$8,917	\$0	\$0	\$23,472
	Contingency				\$38,845	\$6,146	\$32,630	\$0	\$0	\$77,621
	Total 103.02 Process Structures		0		\$188,329	\$26,631	\$141,396	\$0	\$0	\$356,357
103.02 Yard Structures										
	GEN	U.C. per cy	120.00	0	250	50	200	0	0	500
	Truck scales				\$30,000	\$6,000	\$24,000	\$0	\$0	\$60,000
Subtotal										
	Sump		55.00	0	250	50	200	0	0	500
					\$13,750	\$2,750	\$11,000	\$0	\$0	\$27,500
Subtotal Estimate										
	Storage pad		1,770.00	0	250	20	200	0	0	470
					\$442,500	\$35,400	\$354,000	\$0	\$0	\$831,900
Subtotal										
	Sales Tax				\$486,250	\$44,150	\$389,000	\$0	\$0	\$919,400
	INEEL ORG Labor/Subcontractor Overheads				\$203,899	\$18,613	\$171,276	\$0	\$0	\$393,688
Subtotal Estimate										
	Escalation				\$61,630	\$5,596	\$51,769	\$0	\$0	\$118,996
	Contingency				\$225,534	\$20,478	\$189,448	\$0	\$0	\$435,460
	Total 103.02 Yard Structures		0		\$977,313	\$86,737	\$820,943	\$0	\$0	\$1,886,994

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	SJC	Other	TOTAL
9111.01 Sizing Equipment										
	GEN	U.C. per Ea	40	CN-MILL	1316.8	0	105000	0	0	108316.8
Crusher			40	\$32.92	\$1,317	\$0	\$105,000	\$0	\$0	\$106,317
	GEN	U.C. per Ea	10	CN-MILL	329.2	0	3000	0	0	3329.2
50cy holding bin			10	\$32.92	\$329	\$0	\$3,000	\$0	\$0	\$3,329
Subtotal										
Sales Tax					\$1,646	\$0	\$108,000	\$0	\$0	\$109,646
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$5,400	\$0	\$0	\$5,400
					\$690	\$0	\$47,552	\$0	\$0	\$48,242
Subtotal Estimate										
Escalation					\$208	\$0	\$14,373	\$0	\$0	\$163,286
Contingency					\$763	\$0	\$52,598	\$0	\$0	\$114,582
Total 9111.01 Sizing Equipment			60		\$3,308	\$0	\$227,923	\$0	\$0	\$231,231
9111.02 Solidification Equipment										
	GEN	U.C. per Ea	10	CN-MILL	329.2	0	3000	0	0	3329.2
Box dump hopper			10	\$32.92	\$329	\$0	\$3,000	\$0	\$0	\$3,329
	GEN	U.C. per Ea	120	CN-MILL	3950.4	0	319500	0	0	323450.4
50cy/hr Batch plant			120	\$32.92	\$3,950	\$0	\$319,500	\$0	\$0	\$323,450
	SPEC	U.C. per Ea	0		0	0	0	47600	0	47600
900 bbl Bulk material silo			0		\$0	\$0	\$0	\$190,400	\$0	\$190,400
	SPEC	U.C. per Ea	0		0	0	0	52650	0	52650
1350 bbl Bulk cement silo			0		\$0	\$0	\$0	\$52,650	\$0	\$52,650
Subtotal										
Sales Tax					\$4,280	\$0	\$322,500	\$243,050	\$0	\$569,830
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$18,125	\$0	\$0	\$18,125
					\$1,795	\$0	\$141,996	\$64,408	\$0	\$208,198
Subtotal Estimate										
Escalation					\$542	\$0	\$42,819	\$27,456	\$0	\$70,818
Contingency					\$1,885	\$0	\$157,062	\$100,474	\$0	\$269,421
Total 9111.02 Solidification Equipment			130		\$8,602	\$0	\$680,602	\$435,389	\$0	\$1,124,592
9111.03 Mobile Equipment										
	GEN	U.C. per Ea	80	CN-MILL	2633.6	1000	38200	0	0	41833.6
60' Truck scales			160	\$32.92	\$5,267	\$2,000	\$76,400	\$0	\$0	\$83,667
	GEN	U.C. per Ea	0		0	0	40000	0	0	40000
2In Flatbed truck			0		\$0	\$0	\$80,000	\$0	\$0	\$80,000
	GEN	U.C. per Ea	0		0	0	200000	0	0	200000
4cy Transit mix trucks			0		\$0	\$0	\$400,000	\$0	\$0	\$400,000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davis**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Orq/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
	9111.03 Mobile Equipment	U.C. per Ea	1.00	0	0	0	130000	0	0	130000
	Roll-off handling truck				\$0	\$0	\$130,000	\$0	\$0	\$130,000
Subtotal					\$5,287	\$2,000	\$686,400	\$0	\$0	\$693,687
Sales Tax					\$0	\$0	\$34,320	\$0	\$0	\$34,320
INEEL ORG Labor/Subcontractor Overheads					\$2,209	\$839	\$302,220	\$0	\$0	\$305,267
Subtotal Estimate					\$688	\$253	\$91,348	\$0	\$0	\$1,033,284
Escalation					\$2,443	\$928	\$334,288	\$0	\$0	\$92,270
Contingency					\$10,687	\$4,020	\$1,448,574	1%	\$0	\$337,667
Total 9111.03 Mobile Equipment			180							\$1,483,181
	9111.04 Liquid Handling Equipment									
	Memo: Evaporation pond and piping to the pond will be priced in another project.									
	MECH	U.C. per Ea	2.00	CN-PIPE	751.6	0	7500	0	0	8251.6
5000gal Water tank			40	\$37.58	\$1,503	\$0	\$15,000	\$0	\$0	\$16,503
MECH		U.C. per Ea	2.00	CN-PIPE	751.6	0	2465	0	0	3216.6
500gpm Sump pump			40	\$37.58	\$1,503	\$0	\$4,930	\$0	\$0	\$8,433
MECH		U.C. per Ea	2.00	CN-PIPE	563.7	0	1800	0	0	2363.7
50gpm Washdown pump			30	\$37.58	\$1,127	\$0	\$3,600	\$0	\$0	\$4,727
MECH		U.C. per Hr	20.00	CN-EQMD	33.2	50	0	0	0	63.2
Crane usage				\$ J.20	\$684	\$1,000	\$0	\$0	\$0	\$1,684
Subtotal					11,708	\$1,000	\$23,630	\$0	\$0	\$29,328
Sales Tax					\$0	\$0	\$1,177	\$0	\$0	\$1,177
INEEL ORG Labor/Subcontractor Overheads					\$2,012	\$419	\$10,360	\$0	\$0	\$12,791
Subtotal Estimate					\$608	\$127	\$3,131	\$0	\$0	\$43,296
Escalation					\$2,225	\$464	\$11,459	\$0	\$0	\$3,868
Contingency					\$9,643	\$2,010	\$49,668	\$0	\$0	\$14,149
Total 9111.04 Liquid Handling Equipment			130							\$61,311
	9113.01 Storage Building									
	Memo: These unit costs include the building as well as the mechanical and electrical costs.									
	GEN	U.C. per sf	8,000.00	0	19.16	0.4	28.21	41.17	0	88.94
Storage building					\$153,280	\$3,200	\$225,680	\$329,360	\$0	\$711,520

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
9113.01 Storage Building										
<i>Memo: These unit costs include the building as well as the mechanical and electrical costs.</i>										
	GEN	8,000.00	0		0.31					
Storage bldg. floor cover					\$2,480	\$0	\$0	\$72,400	\$0	\$74,880
Subtotal					\$155,760	\$3,200	\$225,680	\$401,760	\$0	\$786,400
Sales Tax					\$0	\$0	\$11,284	\$0	\$0	\$11,284
INEEL ORG Labor/Subcontractor Overheads					\$85,315	\$1,342	\$98,368	\$84,370	\$0	\$250,392
Subtotal Estimate					\$19,742	\$408	\$30,034	\$43,411	\$0	\$93,593
Escalation					\$72,245	\$1,484	\$109,909	\$158,862	\$0	\$342,501
Contingency										
Total 9113.01 Storage Building			0		\$313,062	\$6,432	\$476,274	\$688,403	\$0	\$1,484,171
9113.02 Process Building										
	GEN	35,000.00	0.06	CN-IRON	2.41	0	20	0.15	0	22.58
Process structure			2,100	\$40.16	\$84,336	\$0	\$700,000	\$5,250	\$0	\$789,586
Process bldg. crane usage		80.00	1	CN-EQMD	33.2	50	0	0	0	83.2
			80	\$33.20	\$2,656	\$4,000	\$0	\$0	\$0	\$6,656
Subtotal					\$86,992	\$4,000	\$700,000	\$5,250	\$0	\$796,242
Sales Tax					\$0	\$0	\$35,000	\$0	\$0	\$35,000
INEEL ORG Labor/Subcontractor Overheads					\$36,478	\$1,077	\$308,208	\$1,103	\$0	\$347,466
Subtotal Estimate					\$11,028	\$507	\$93,158	\$687	\$0	\$117,078
Escalation					\$40,349	\$1,955	\$340,910	\$2,076	\$0	\$405,259
Contingency										
Total 9113.02 Process Building			2,180		\$174,845	\$6,040	\$1,477,276	\$8,996	\$0	\$1,669,156
9113.03 Admin Building										
	GEN	70,000.00	0		0	0	0	8.5	0	8.5
Admin building					\$0	\$0	\$0	\$595,000	\$0	\$595,000
Subtotal					\$0	\$0	\$0	\$595,000	\$0	\$595,000
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$0	\$124,950	\$0	\$124,950
Subtotal Estimate					\$0	\$0	\$0	\$64,292	\$0	\$719,950
Escalation					\$0	\$0	\$0	\$235,272	\$0	\$235,272
Contingency										
Total 9113.03 Admin Building			0		\$0	\$0	\$0	\$1,019,514	\$0	\$1,019,514
9114.01 Belt Conveyors										
	MECH	1,200.00	0.05	CN-MILL	1.846	0	10	0	0	11.646
24" Conveyor belt			60	\$32.92	\$1,975	\$0	\$12,000	\$0	\$0	\$13,975
Memo: One conveyor at 225' and one at 260'										

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
	9114.01 Belt Conveyors									
Belt Splices	MECH	U.C. per ea	2.00	6 CN-MILL \$32.92	197.52 \$395	0 \$0	95 \$180	0 \$0	0 \$0	282.52 \$585
15hp drive	MECH	U.C. per Ea	2.00	5 CN-MILL \$32.92	164.6 \$329	0 \$0	5255 \$10,510	0 \$0	0 \$0	5419.6 \$10,839
Tail pulley	MECH	U.C. per Ea	2.00	4 CN-MILL \$32.92	131.68 \$263	0 \$0	1285 \$2,670	0 \$0	0 \$0	1416.68 \$2,833
GTU pulley	MECH	U.C. per Ea	2.00	4 CN-MILL \$32.92	131.68 \$263	0 \$0	1305 \$2,610	0 \$0	0 \$0	1436.68 \$2,873
Snubbb pulley	MECH	U.C. per Ea	6.00	2 CN-MILL \$32.92	65.84 \$395	0 \$0	565 \$3,390	0 \$0	0 \$0	630.84 \$3,785
Impact idlers	MECH	U.C. per Ea	8.00	0 CN-MILL	0 \$0	0 \$0	350 \$2,800	0 \$0	0 \$0	350 \$2,800
Troughing idlers	MECH	U.C. per Ea	140.00	0 CN-MILL	0 \$0	0 \$0	195 \$27,300	0 \$0	0 \$0	195 \$27,300
Return idlers	MECH	U.C. per Ea	80.00	0 CN-MILL	0 \$0	0 \$0	90 \$7,200	0 \$0	0 \$0	90 \$7,200
Holdback	MECH	U.C. per Ea	2.00	5 CN-MILL \$32.92	164.6 \$329	0 \$0	630 \$1,260	0 \$0	0 \$0	794.6 \$1,689
Trusses	MECH	U.C. per lf	350.00	0.4 CN-MILL \$32.92	13.168 \$4,809	0 \$0	112 \$9,200	0 \$0	0 \$0	125.168 \$43,809
Bents	MECH	U.C. per Ea	8.00	2 CN-MILL \$32.92	65.84 \$527	0 \$0	600 \$4,800	0 \$0	0 \$0	665.84 \$5,327
Floor frame	MECH	U.C. per lf	150.00	0.3 CN-MILL \$32.92	9.876 \$1,481	0 \$0	39 \$5,860	0 \$0	0 \$0	48.876 \$7,331
Loading chute	MECH	U.C. per Ea	3.00	2 CN-MILL \$32.92	65.84 \$198	0 \$0	400 \$1,200	0 \$0	0 \$0	465.84 \$1,398
Head chute	MECH	U.C. per Ea	2.00	2 CN-MILL \$32.92	65.84 \$132	0 \$0	785 \$1,570	0 \$0	0 \$0	850.84 \$1,702

Project Name:
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

CONSTRUCTION DETAIL ITEM REPORT

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
9114.01 Belt Conveyors										
Crane usage	MECH	U.C. per hr	80.00	1 CN-EQMD \$33.20	\$2,656	\$5,496	\$0	\$0	\$0	\$8,152
Subtotal					\$13,553	\$5,496	\$122,450	\$0	\$0	\$141,499
Sales Tax					\$0	\$0	\$6,123	\$0	\$0	\$6,123
INEEL ORG Labor/Subcontractor Overheads					\$5,863	\$2,305	\$63,914	\$0	\$0	\$61,902
Subtotal Estimate										
Escalation					\$1,718	\$697	\$16,296	\$0	\$0	\$18,710
Contingency					\$6,266	\$2,549	\$59,635	\$0	\$0	\$68,470
--- Total 9114.01 Belt Conveyors										
			411		\$27,239	\$11,046	\$266,418	\$0	\$0	\$296,703
9115.01 HVAC										
Exhaust stack	HVAC	U.C. per Ea	1.00	0	\$0	\$0	\$0	150000	\$0	\$150,000
Fan	HVAC	U.C. per Ea	2.00	40 CN-SHEE \$35.48	\$2,838	\$0	\$53,200	\$0	\$0	\$56,038
Fan motor	HVAC	U.C. per Ea	2.00	20 CN-SHEE \$35.48	\$709.6	\$0	\$5,000	\$0	\$0	\$5,709.6
Hepa filter banks	HVAC	U.C. per Ea	2.00	160 CN-SHEE \$35.48	\$5,676.8	\$0	\$14,000	\$0	\$0	\$14,5676.8
Dust collector	HVAC	U.C. per Ea	2.00	320 CN-SHEE \$35.48	\$11,354	\$0	\$280,000	\$0	\$0	\$291,354
Duct	HVAC	U.C. per Lbs	31,000.00	0.12 CN-SHEE \$35.48	\$4,258	\$0	\$54,000	\$0	\$0	\$58,258
Duct supports	HVAC	U.C. per Ea	80.00	4 CN-SHEE \$35.48	\$141.92	\$0	\$4,000	\$0	\$0	\$4,141.92
Subtotal					\$170,304	\$0	\$427,560	\$150,000	\$0	\$747,864
Sales Tax					\$0	\$0	\$21,378	\$0	\$0	\$21,378
INEEL ORG Labor/Subcontractor Overheads					\$71,414	\$0	\$186,249	\$31,500	\$0	\$291,162
Subtotal Estimate										
Escalation					\$21,585	\$0	\$56,900	\$16,208	\$0	\$94,693
Contingency					\$78,991	\$0	\$208,223	\$59,312	\$0	\$346,526
--- Total 9115.01 HVAC										
			4,900		\$342,294	\$0	\$992,299	\$267,020	\$0	\$1,501,613
9115.02 Process Utility Piping										
Plant air pipe	MECH	U.C. per Lf	2,000.00	1 CN-PIPE \$37.56	\$75,160	\$0	\$10,800	\$0	\$0	\$85,960
--- Total 9115.02 Process Utility Piping										
			2,000		\$75,160	\$0	\$10,800	\$0	\$0	\$85,960

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Prepared By: **R. L. Davison**
 Estimate Number: **2959-2**
 Project Location: **INTEC**
 Estimate Type: **Conceptual**

CONSTRUCTION DETAIL ITEM REPORT

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
--- 9115.02 Process Utility Piping										
	MECH									
Breathing air pipe		U.C. per Lf	2,400	1.2 CN-PIPE	\$45,098	\$0	\$25,800	\$0	\$0	\$71,898
					\$90,192	\$0	\$0	\$0	\$0	\$180,384
Plant water pipe		U.C. per Lf	2,000	1 CN-PIPE	\$37.58	\$0	\$10,800	\$0	\$0	\$42,960
					\$75,160	\$0	\$0	\$0	\$0	\$150,320
Fire pipe for fabric structure	FP	U.C. per Sf	0		\$0	\$0	\$0	\$65,000	\$0	\$65,000
					\$0	\$0	\$0	\$0	\$0	\$0
Product transfer spray	MECH	U.C. per Lf	800	1 CN-PIPE	\$37.58	\$0	\$4,320	\$0	\$0	\$4,795.20
					\$30,064	\$0	\$0	\$0	\$0	\$34,859.20
Subtotal					\$270,576	\$0	\$51,720	\$65,000	\$0	\$387,296
Sales Tax					\$0	\$0	\$2,586	\$0	\$0	\$2,586
INEEL ORG Labor/Subcontractor Overheads					\$113,461	\$0	\$22,772	\$17,225	\$0	\$153,458
Subtotal Estimate					\$34,284	\$0	\$6,883	\$7,343	\$0	\$48,510
Escalation					\$125,499	\$0	\$25,188	\$28,870	\$0	\$179,557
Contingency					\$543,830	\$0	\$109,150	\$116,438	\$0	\$769,418
--- Total 9115.02 Process Utility Piping										
			7,200		\$543,830	\$0	\$109,150	\$116,438	\$0	\$769,418
--- 9115.02 Yard Utility Piping										
	MECH									
Potable water pipe		U.C. per Lf	1,200	1.2 CN-PIPE	\$45,098	\$0	\$5,400	\$0	\$0	\$50,498
					\$45,098	\$0	\$0	\$0	\$0	\$90,996
Sump discharge pipe	MECH	U.C. per Lf	200	2 CN-PIPE	\$75.18	\$0	\$2,000	\$0	\$0	\$150.36
					\$7,518	\$0	\$0	\$0	\$0	\$15.04
Memo: This pipe only goes to the storage tanks near the sump.										
Subtotal					\$52,612	\$0	\$7,400	\$0	\$0	\$60,012
Sales Tax					\$0	\$0	\$370	\$0	\$0	\$370
INEEL ORG Labor/Subcontractor Overheads					\$22,062	\$0	\$3,258	\$0	\$0	\$25,320
Subtotal Estimate					\$6,668	\$0	\$985	\$0	\$0	\$7,653
Escalation					\$24,403	\$0	\$3,804	\$0	\$0	\$28,207
Contingency					\$105,745	\$0	\$15,617	\$0	\$0	\$121,362
--- Total 9115.02 Yard Utility Piping										
			1,400		\$105,745	\$0	\$15,617	\$0	\$0	\$121,362
--- 9115.01 Process Conduit & Trays										
	ELEC									
Power conduit		U.C. per Lf	500	0.5 CN-ELEC	\$17,060	\$0	\$6,800	\$0	\$0	\$23,860
					\$17,060	\$0	\$0	\$0	\$0	\$34,720

CONSTRUCTION DETAIL ITEM REPORT

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
--- 9116.01 Process Conduit & Trays										
	ELEC	U.C. per Lf	2,000.00	0.25 CN-ELEC	\$34.12	\$0	\$2,000	\$0	\$0	\$18,080
	Lighting conduit				\$17,060	\$0	\$2,000	\$0	\$0	\$18,080
	Subtotal				\$34,120	\$0	\$8,800	\$0	\$0	\$42,920
	Sales Tax				\$0	\$0	\$440	\$0	\$0	\$440
	INEEL ORG Labor/Subcontractor Overheads				\$14,308	\$0	\$3,875	\$0	\$0	\$18,182
	Subtotal Estimate				\$4,325	\$0	\$1,171	\$0	\$0	\$61,642
	Escalation				\$15,828	\$0	\$4,288	\$0	\$0	\$5,488
	Contingency				\$68,878	\$0	\$18,871	\$0	\$0	\$20,111
	---Total 9116.01 Process Conduit & Trays		1,000							\$87,149
--- 9116.02 Process Wire & Cable										
	ELEC	U.C. per Lf	6,000.00	0.08 CN-ELEC	\$34.12	\$0	\$6,400	\$0	\$0	\$11.13
	Med voltage cable				\$18,378	\$0	\$6,400	\$0	\$0	\$86,778
	ELEC	U.C. per Lf	20,000.00	0.008 CN-ELEC	\$34.12	\$0	\$3,600	\$0	\$0	\$0.463
	Med voltage wire				\$5,458	\$0	\$3,600	\$0	\$0	\$9,059
	ELEC	U.C. per lf	10,000.00	0.008 CN-ELEC	\$34.12	\$0	\$5,000	\$0	\$0	\$0.773
	Communications cable				\$2,730	\$0	\$5,000	\$0	\$0	\$7,730
	Subtotal				\$24,568	\$0	\$59,000	\$0	\$0	\$83,568
	Sales Tax				\$0	\$0	\$2,950	\$0	\$0	\$2,950
	INEEL ORG Labor/Subcontractor Overheads				\$10,301	\$0	\$25,977	\$0	\$0	\$36,279
	Subtotal Estimate				\$3,114	\$0	\$7,852	\$0	\$0	\$122,795
	Escalation				\$11,384	\$0	\$28,734	\$0	\$0	\$10,968
	Contingency				\$49,378	\$0	\$124,813	\$0	\$0	\$40,128
	---Total 9116.02 Process Wire & Cable		720							\$173,889
--- 9116.04 Process MCC's, Panels, & Starters										
	ELEC	U.C. per Ea	4.00	16 CN-ELEC	\$45.92	\$0	4000	\$0	\$0	4545.92
	480 to 208 transformer				\$2,184	\$0	\$16,000	\$0	\$0	\$18,184
	ELEC	U.C. per Ea	6.00	8 CN-ELEC	\$27.86	\$0	200	\$0	\$0	472.96
	Panel boards				\$1,838	\$0	\$1,200	\$0	\$0	\$2,838
	ELEC	U.C. per Ea	150.00	1 CN-ELEC	\$4.12	\$0	150	\$0	\$0	184.12
	Breakers				\$5,118	\$0	\$22,500	\$0	\$0	\$27,618
	ELEC	U.C. per Ea	1.00	60 CN-ELEC	\$34.12	\$0	83000	\$0	\$0	85047.2
	MCC				\$2,047	\$0	\$83,000	\$0	\$0	\$85,047

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
9116.04 Process MCC's, Panels, & Starters										
	ELEC									
Disc switches		U.C. per Ea	10.00	10 CN-ELEC 100	341.2 \$3,412	0 \$0	1500 \$15,000	0 \$0	0 \$0	1841.2 \$18,412
Subtotal					\$14,399	\$0	\$137,700	\$0	\$0	\$152,099
Sales Tax					\$0	\$0	\$6,865	\$0	\$0	\$6,865
INEEL ORG Labor/Subcontractor Overheads					\$6,038	\$0	\$60,829	\$0	\$0	\$66,867
Subtotal Estimate					\$1,825	\$0	\$18,328	\$0	\$0	\$20,151
Escalation					\$6,678	\$0	\$67,062	\$0	\$0	\$73,740
Contingency					\$28,940	\$0	\$290,801	\$0	\$0	\$319,641
Total 9116.04 Process MCC's, Panels, & Starters										
			422							
9116.04 Main Sub Equipment										
	ELEC									
4160 to 480 transformer		U.C. per Ea	1.00	30 CN-ELEC 30	1023.6 \$1,024	0 \$0	33000 \$33,000	0 \$0	0 \$0	34023.6 \$34,024
Switchgear		U.C. per Ea	1.00	40 CN-ELEC 40	1364.8 \$1,365	0 \$0	210000 \$210,000	0 \$0	0 \$0	211364.8 \$211,365
Subtotal					\$2,388	\$0	\$243,000	\$0	\$0	\$245,388
Sales Tax					\$0	\$0	\$12,150	\$0	\$0	\$12,150
INEEL ORG Labor/Subcontractor Overheads					\$1,002	\$0	\$106,982	\$0	\$0	\$107,984
Subtotal Estimate					\$303	\$0	\$32,339	\$0	\$0	\$365,532
Escalation					\$1,108	\$0	\$118,344	\$0	\$0	\$32,642
Contingency					\$4,800	\$0	\$612,826	\$0	\$0	\$119,462
Total 9116.04 Main Sub Equipment										
			70							
9116.05 Process Area Lighting										
	ELEC									
General building light		U.C. per Ea	50.00	6 CN-ELEC 300	204.72 \$10,236	0 \$0	800 \$40,000	0 \$0	0 \$0	1004.72 \$50,236
Small area light		U.C. per Ea	50.00	1.5 CN-ELEC 75	51.18 \$2,559	0 \$0	280 \$14,000	0 \$0	0 \$0	331.18 \$16,559
Subtotal					\$12,795	\$0	\$54,000	\$0	\$0	\$66,795
Sales Tax					\$0	\$0	\$2,700	\$0	\$0	\$2,700
INEEL ORG Labor/Subcontractor Overheads					\$5,385	\$0	\$23,776	\$0	\$0	\$29,141
Subtotal Estimate					\$1,022	\$0	\$7,187	\$0	\$0	\$9,836
Escalation					\$5,935	\$0	\$26,289	\$0	\$0	\$8,808
Contingency					\$26,717	\$0	\$113,961	\$0	\$0	\$32,233
Total 9116.05 Process Area Lighting										
			376							

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
--- 9116.05 Yard Lighting										
	ELEC	U.C. per Ea	10.00	0	CN-ELEC	0	1380	0	0	1448
Light poles						\$680	\$13,800	\$0	\$0	\$14,480
Area lights										
	ELEC	U.C. per Ea	10.00	0	CN-ELEC	0	470	0	0	485
						\$150	\$4,700	\$0	\$0	\$4,850
Subtotal										
					\$0	\$630	\$18,500	\$0	\$0	\$19,330
Sales Tax					\$0	\$0	\$925	\$0	\$0	\$925
INEEL ORG Labor/Subcontractor Overheads					\$0	\$348	\$6,145	\$0	\$0	\$6,494
Subtotal Estimate										
Escalation					\$0	\$105	\$2,462	\$0	\$0	\$2,567
Contingency					\$0	\$385	\$9,010	\$0	\$0	\$9,395
---Total 9116.05 Yard Lighting										
			0		\$0	\$1,668	\$39,042	\$0	\$0	\$40,711
--- 9116.06 Process Grounding										
	ELEC	U.C. per Lf	1,200.00	0.038	CN-ELEC	1,228	2	0	0	3,228
Process area grounding				43	\$34.12	\$0	\$2,400	\$0	\$0	\$3,874
Ground rods										
	ELEC	U.C. per Ea	20.00	1.5	CN-ELEC	51.18	30	0	0	81.18
				30	\$34.12	\$0	\$800	\$0	\$0	\$1,624
Wire connections										
	ELEC	U.C. per Ea	50.00	0.35	CN-ELEC	11.942	5	0	0	16,942
				18	\$34.12	\$0	\$260	\$0	\$0	\$847
Subtotal										
					\$3,095	\$0	\$3,250	\$0	\$0	\$6,345
Sales Tax					\$0	\$0	\$163	\$0	\$0	\$163
INEEL ORG Labor/Subcontractor Overheads					\$1,298	\$0	\$1,431	\$0	\$0	\$2,729
Subtotal Estimate										
Escalation					\$382	\$0	\$433	\$0	\$0	\$815
Contingency					\$1,435	\$0	\$1,583	\$0	\$0	\$3,018
---Total 9116.06 Process Grounding										
			91		\$6,220	\$0	\$6,859	\$0	\$0	\$13,079
--- 9116.06 Yard Grounding										
	ELEC	U.C. per Lf	400.00	0.038	CN-ELEC	1,228	2	0	0	3,228
Transformer grounding				14	\$34.12	\$0	\$800	\$0	\$0	\$1,291
Subtotal										
					\$491	\$0	\$800	\$0	\$0	\$1,291
Sales Tax					\$0	\$0	\$40	\$0	\$0	\$40
INEEL ORG Labor/Subcontractor Overheads					\$206	\$0	\$352	\$0	\$0	\$558
Subtotal Estimate										
Escalation					\$62	\$0	\$106	\$0	\$0	\$168
Contingency					\$228	\$0	\$390	\$0	\$0	\$618
---Total 9116.06 Yard Grounding										
			14		\$868	\$0	\$1,688	\$0	\$0	\$2,576

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

CONSTRUCTION DETAIL ITEM REPORT

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL
9120 Utilities from INTEC										
	GEN	U.C. per Ea	1.00	0	0	0	0	2000000	0	2000000
Memo: This LS number comes from the Title I design package estimate. for details see estimate file number 2557										
Subtotal					\$0	\$0	\$0	\$2,000,000	\$0	\$2,000,000
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$0	\$420,000	\$0	\$420,000
Subtotal Estimate					\$0	\$0	\$0	\$216,106	\$0	\$216,106
Escalation					\$0	\$0	\$0	\$790,832	\$0	\$790,832
Contingency					\$0	\$0	\$0	\$3,426,938	\$0	\$3,426,938
--Total 9120 Utilities from INTEC										
	GAPIF Non-Org G&A and PIF				\$0	\$0	\$0	\$0	\$0	\$0
Memo: This is a model that works with the macro named "INEELRollup_Rev0.BAS".										
PF	NOGAPIF	U.C. per \$	587,377.00	0	0	0	0	\$0	\$587,377	\$587,377
Procurement Fee %					\$0	\$0	\$0	\$0	\$0	\$0
G&A	NOGAPIF	U.C. per \$	220,266.00	0	0	0	0	\$0	\$220,266	\$220,266
G&A Fee %					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal					\$0	\$0	\$0	\$0	\$807,643	\$807,643
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$0	\$0	\$0	\$0
Subtotal Estimate					\$0	\$0	\$0	\$0	\$0	\$0
Escalation					\$0	\$0	\$0	\$0	\$0	\$0
Contingency					\$0	\$0	\$0	\$0	\$0	\$0
--Total GAPIF Non-Org G&A and PIF										
					\$0	\$0	\$0	\$0	\$1,066,719	\$1,066,719
Subtotal SSSTF										
Sales Tax					\$4,126,822	\$266,700	\$4,092,733	\$3,460,060	\$807,643	\$12,755,957
INEEL ORG Labor/Subcontractor Overheads					\$0	\$0	\$204,637	\$0	\$0	\$204,637
Subtotal Estimate					\$2,820,930	\$116,578	\$1,845,840	\$743,556	\$0	\$5,526,904
Escalation					\$620,434	\$34,405	\$546,589	\$375,383	\$72,123	\$1,650,934
Contingency					\$1,984,401	\$125,905	\$2,007,639	\$1,373,699	\$175,953	\$5,647,498
Total SSSTF										
			75,249		\$9,532,588	\$645,588	\$8,698,337	\$5,952,698	\$1,055,719	\$25,785,929

Sorted by Work Area

No G&A or procurement Fees

Project Name:
Staging, Storage, Stabilization, and Treatment Facility
 Project Location: *INTEC*
 Estimate Number: *2959-2*

DIA CUSTOM GROUPING REPORT 2T

Client: *R. L. Davison*
 Prepared By: *J. C. Grenz*
 Estimate Type: *Conceptual*

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
- 01										
- WBS 9113.01	GEN	U.C. per sf 8,000.00	0		19.16 \$153,280	0.4 \$3,200	28.21 \$225,680	41.17 \$329,360	0 \$0	88.94 \$711,520
Storage building										
Storage bldg. floor cover	GEN	U.C. per sf 8,000.00	0		0.31 \$2,480	0 \$0	0 \$0	9.05 \$72,400	0 \$0	9.36 \$74,880
Subtotal WBS 9113.01					\$155,760	\$3,200	\$225,680	\$401,760	\$0	\$786,400
Sales Tax					\$0	\$0	\$11,284	\$0	\$0	\$11,284
INEEL Org Labor/Subcontractor Overheads					\$65,315	\$1,342	\$99,366	\$84,370	\$0	\$250,392
Escalation					\$19,742	\$406	\$30,034	\$43,411	\$0	\$93,593
Contingency					\$72,245	\$1,484	\$109,909	\$158,862	\$0	\$342,501
- Total WBS 9113.01					\$313,062	\$6,432	\$476,274	\$688,403	\$0	\$1,494,171
Subtotal 01					\$165,760	\$3,200	\$225,680	\$401,760	\$0	\$786,400
Sales Tax					\$0	\$0	\$11,284	\$0	\$0	\$11,284
INEEL Org Labor/Subcontractor Overheads					\$65,315	\$1,342	\$99,366	\$84,370	\$0	\$250,392
Escalation					\$19,742	\$406	\$30,034	\$43,411	\$0	\$93,593
Contingency					\$72,245	\$1,484	\$109,909	\$158,862	\$0	\$342,501
- Total 01					\$313,062	\$6,432	\$476,274	\$688,403	\$0	\$1,494,171

Project Name:
Staging, Storage, Stabilization, and Treatment Facility
 Project Location: **INEEL**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Material	Const Eqp	S/C	Other	TOTAL*
--	WBS 9102.02								
	Truck dump ex	U.C. per cy 10,020.00	0	1.85 \$18,537	0	1.95 \$18,539	0	0	3.8 \$38,078
	Truck dump backfill	U.C. per cy 10,020.00	0	14.8 \$148,296	0	1.45 \$14,529	0	0	16.25 \$162,825
	Stack fdn ex	U.C. per cy 120.00	0	1.85 \$222	0	1.95 \$234	0	0	3.8 \$456
	Stack fdn backfill	U.C. per cy 120.00	0	14.8 \$1,778	0	1.45 \$174	0	0	16.25 \$1,950
	Box dump ex	U.C. per cy 620.00	0	1.85 \$1,147	0	1.95 \$1,209	0	0	3.8 \$2,356
	Box dump backfill	U.C. per cy 620.00	0	14.8 \$9,178	0	1.45 \$899	0	0	16.25 \$10,076
	Subtotal WBS 9102.02			\$179,154		\$38,584			\$215,738
	Sales Tax			\$0		\$0			\$0
	INEEL Org Labor/Subcontractor Overheads			\$75,125		\$15,341			\$90,465
	Escalation			\$22,707		\$4,637			\$27,344
	Contingency			\$83,086		\$16,988			\$100,064
--	Total WBS 9102.02			\$360,081		\$73,530			\$433,612
--	WBS 9103.01								
	Belt conveyor footings	U.C. per cy 16.00	0	230 \$3,680	0	0	0	0	380 \$6,080
	Airslide conveyor footings	U.C. per cy 15.00	0	230 \$1,840	0	0	0	0	380 \$3,040
	Silo footings	U.C. per cy 16.00	0	230 \$3,680	0	0	0	0	380 \$6,080
	Process structure fdn	U.C. per cy 200.00	0	150 \$30,000	0	0	0	0	300 \$60,000

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **DIA CUSTOM GROUPING REPORT 2T**
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
	GEN	U.C. per cy								
Stack foundation		20.00	0		\$4,000	\$400	\$3,000	\$0	\$0	\$7,400
Subtotal WBS 9103.01					\$43,200	\$400	\$39,000	\$0	\$0	\$82,600
Sales Tax					\$0	\$0	\$1,950	\$0	\$0	\$1,950
INEEL Org Labor/Subcontractor Overheads					\$18,115	\$188	\$17,172	\$0	\$0	\$35,454
Escalation					\$5,475	\$61	\$5,190	\$0	\$0	\$10,716
Contingency					\$20,037	\$188	\$18,994	\$0	\$0	\$39,216
- Total WBS 9103.01					\$86,828	\$804	\$82,306	\$0	\$0	\$169,937
- WBS 9103.02										
Truck dump/crusher	GEN	U.C. per cy	0		250	50	200	0	0	500
		265.00			\$66,250	\$13,250	\$53,000	\$0	\$0	\$132,500
Box dump	GEN	U.C. per cy	0		250	0	200	0	0	450
		70.00			\$17,500	\$0	\$14,000	\$0	\$0	\$31,500
Subtotal WBS 9103.02					\$83,750	\$13,250	\$67,000	\$0	\$0	\$164,000
Sales Tax					\$0	\$0	\$3,350	\$0	\$0	\$3,350
INEEL Org Labor/Subcontractor Overheads					\$35,119	\$5,556	\$29,500	\$0	\$0	\$70,175
Escalation					\$10,615	\$1,679	\$8,917	\$0	\$0	\$21,211
Contingency					\$38,645	\$6,146	\$32,830	\$0	\$0	\$77,621
- Total WBS 9103.02					\$168,329	\$26,631	\$141,396	\$0	\$0	\$336,357
- WBS 9111.01										
Crusher	GEN	U.C. per Ea	40	CN-MILL	1316.8	0	105000	0	0	106316.8
		1.00	40	\$32.92	\$1,317	\$0	\$105,000	\$0	\$0	\$106,317
50cy holding bin	GEN	U.C. per Ea	10	CN-MILL	329.2	0	3000	0	0	3329.2
		1.00	10	\$32.92	\$329	\$0	\$3,000	\$0	\$0	\$3,329
Subtotal WBS 9111.01					\$1,646	\$0	\$108,000	\$0	\$0	\$109,646
Sales Tax					\$0	\$0	\$5,400	\$0	\$0	\$5,400
INEEL Org Labor/Subcontractor Overheads					\$690	\$0	\$47,552	\$0	\$0	\$48,242
Escalation					\$209	\$0	\$14,373	\$0	\$0	\$14,582
Contingency					\$763	\$0	\$52,598	\$0	\$0	\$53,361
- Total WBS 9111.01					\$3,308	\$0	\$227,923	\$0	\$0	\$231,231
- WBS 9111.02										
Box dump hopper	GEN	U.C. per Ea	10	CN-MILL	329.2	0	3000	0	0	3329.2
		1.00	10	\$32.92	\$329	\$0	\$3,000	\$0	\$0	\$3,329
50cy/hr Batch plant	GEN	U.C. per Ea	120	CN-MILL	3950.4	0	319500	0	0	323450.4
		1.00	120	\$32.92	\$3,950	\$0	\$319,500	\$0	\$0	\$323,450
900 bbl Bulk material silo	SPEC	U.C. per Ea	0		0	0	0	47600	0	47600
		4.00	0		\$0	\$0	\$0	\$180,400	\$0	\$180,400
INEEL										

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	SIC	Other	TOTAL*
	SPEC	U.C. per Ea								
1350 bbl Bulk cement silo		1.00	0		\$0	\$0	\$0	\$52,650	\$0	\$52,650
Subtotal	WBS 9111.02		130		\$8,602	\$0	\$680,602	\$436,389	\$0	\$1,124,992
Sales Tax					\$4,280	\$0	\$322,500	\$243,050	\$0	\$569,830
INEEL Org Labor/Subcontractor Overheads					\$0	\$0	\$16,125	\$0	\$0	\$16,125
Escalation					\$1,795	\$0	\$141,996	\$64,408	\$0	\$208,199
Contingency					\$542	\$0	\$42,919	\$27,456	\$0	\$70,918
					\$1,985	\$0	\$157,062	\$100,474	\$0	\$259,521
-- Total WBS 9111.02			130		\$8,602	\$0	\$680,602	\$436,389	\$0	\$1,124,992
-- WBS 9113.02	GEN	U.C. per sf	0.06	CN-IRON	2.41	0	20	0.15	0	22.56
Process structure		35,000.00	2,100	\$40.16	\$84,336	\$0	\$700,000	\$5,250	\$0	\$789,586
Process bldg. crane usage	GEN	U.C. per hr	1	CN-EQMD	33.2	50	0	0	0	83.2
		80.00	80	\$33.20	\$2,656	\$4,000	\$0	\$0	\$0	\$6,656
Subtotal	WBS 9113.02				\$88,992	\$4,000	\$700,000	\$5,250	\$0	\$798,242
Sales Tax					\$0	\$0	\$35,000	\$0	\$0	\$35,000
INEEL Org Labor/Subcontractor Overheads					\$38,478	\$1,877	\$308,208	\$1,103	\$0	\$347,466
Escalation					\$11,028	\$507	\$93,158	\$567	\$0	\$105,259
Contingency					\$40,348	\$1,655	\$340,910	\$2,076	\$0	\$385,190
-- Total WBS 9113.02			2,180		\$174,845	\$8,040	\$1,477,276	\$8,996	\$0	\$1,669,156
-- WBS 9114.01	MECH	U.C. per lf	0.05	CN-MILL	1.646	0	10	0	0	11.646
24" Conveyor belt		1,200.00	60	\$32.92	\$1,975	\$0	\$12,000	\$0	\$0	\$13,975
MEMO: One conveyor at 225' and one at 260'										
Belt Splices	MECH	U.C. per ea	6	CN-MILL	167.52	0	95	0	0	262.52
		2.00	12	\$32.92	\$395	\$0	\$190	\$0	\$0	\$585
15hp drive	MECH	U.C. per Ea	5	CN-MILL	164.6	0	5255	0	0	5419.6
		2.00	10	\$32.92	\$329	\$0	\$10,510	\$0	\$0	\$10,839
Tail pully	MECH	U.C. per Ea	4	CN-MILL	131.68	0	1265	0	0	1416.68
		2.00	8	\$32.92	\$263	\$0	\$2,570	\$0	\$0	\$2,833
GTU pully	MECH	U.C. per Ea	4	CN-MILL	131.68	0	1305	0	0	1436.68
		2.00	8	\$32.92	\$263	\$0	\$2,610	\$0	\$0	\$2,873
Snubby pulley	MECH	U.C. per Ea	2	CN-MILL	65.84	0	565	0	0	630.84
		6.00	12	\$32.92	\$395	\$0	\$3,360	\$0	\$0	\$3,755
Impact idlers	MECH	U.C. per Ea	0	CN-MILL	0	0	350	0	0	350
		8.00	0		\$0	\$0	\$2,800	\$0	\$0	\$2,800
Troughing idlers	MECH	U.C. per Ea	0	CN-MILL	0	0	195	0	0	195
		140.00	0		\$0	\$0	\$27,300	\$0	\$0	\$27,300
INEEL										

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	SIC	Other	TOTAL*
	MECH	U.C. per Ea		CN-MILL						
Return idlers		80.00	0		\$0	\$0	\$0	0	\$0	\$7,200
Holdback	MECH	U.C. per Ea	5	CN-MILL	164.6	0	630	0	0	794.6
		2.00	10	\$32.92	\$329	\$0	\$1,260	\$0	\$0	\$1,569
Trusses	MECH	U.C. per lf	0.4	CN-MILL	13.168	0	112	0	0	125.168
		350.00	140	\$32.92	\$4,609	\$0	\$39,200	\$0	\$0	\$43,809
Bents	MECH	U.C. per Ea	2	CN-MILL	65.84	0	600	0	0	685.84
		8.00	16	\$32.92	\$527	\$0	\$4,800	\$0	\$0	\$5,327
Floor frame	MECH	U.C. per lf	0.3	CN-MILL	9.876	0	39	0	0	48.876
		160.00	45	\$32.92	\$1,481	\$0	\$5,850	\$0	\$0	\$7,331
Loading chute	MECH	U.C. per Ea	2	CN-MILL	65.84	0	400	0	0	485.84
		3.00	6	\$32.92	\$198	\$0	\$1,200	\$0	\$0	\$1,398
Head chute	MECH	U.C. per Ea	2	CN-MILL	65.84	0	785	0	0	850.84
		2.00	4	\$32.92	\$132	\$0	\$1,570	\$0	\$0	\$1,702
Crane usage	MECH	U.C. per hr	1	CN-EQMD	33.2	66.7	0	0	0	101.9
		80.00	80	\$33.20	\$2,656	\$5,496	\$0	\$0	\$0	\$8,152
Subtotal	WBS 9114.01				\$13,553	\$5,496	\$122,450	\$0	\$0	\$141,489
Sales Tax					\$0	\$0	\$6,123	\$0	\$0	\$6,123
INEEL Org Labor/Subcontractor Overheads					\$5,683	\$2,305	\$53,914	\$0	\$0	\$61,902
Escalation					\$1,716	\$697	\$18,288	\$0	\$0	\$18,710
Contingency					\$6,286	\$2,649	\$59,635	\$0	\$0	\$68,470
- Total WBS 9114.01			411		\$27,239	\$11,046	\$258,418	\$0	\$0	\$296,703
- WBS 9115.01										
Exhaust stack	HVAC	U.C. per Ea	0		\$0	0	0	150000	0	150000
		1.00			\$0	\$0	\$0	\$150,000	\$0	\$150,000
Fan	HVAC	U.C. per Ea	40	CN-SHEE	1419.2	0	26600	0	0	28019.2
		2.00	80	\$35.48	\$2,838	\$0	\$53,200	\$0	\$0	\$56,038
Fan motor	HVAC	U.C. per Ea	20	CN-SHEE	709.6	0	5000	0	0	5709.6
		2.00	40	\$35.48	\$1,419	\$0	\$10,000	\$0	\$0	\$11,419
Hepa filter banks	HVAC	U.C. per Ea	160	CN-SHEE	5876.8	0	140000	0	0	145676.8
		2.00	320	\$35.48	\$11,354	\$0	\$280,000	\$0	\$0	\$291,354
Dust collector	HVAC	U.C. per Ea	160	CN-SHEE	5876.8	0	27000	0	0	32876.8
		2.00	320	\$35.48	\$11,354	\$0	\$54,000	\$0	\$0	\$65,354
Duct	HVAC	U.C. per Lbs	0.12	CN-SHEE	4.258	0	0.85	0	0	5.108
		31,000.00	3,720	\$35.48	\$131,986	\$0	\$28,350	\$0	\$0	\$156,336

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name:
Staging, Storage, Stabilization, and Treatment Facility
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
		U.C. per Ea		CN-SHEE						
Duct supports	HVAC	80.00	4	320	141.92 \$11,154	0	50 \$4,000	0	0	191.92 \$15,354
Subtotal WBS 9115.01										
Sales Tax					\$14,004	\$0	\$427,550	\$150,000	\$0	\$747,854
INEEL Org Labor/Subcontractor Overheads					\$0	\$0	\$21,378	\$0	\$0	\$21,378
Escalation					\$71,414	\$0	\$188,249	\$31,800	\$0	\$291,162
Contingency					\$21,565	\$0	\$56,900	\$16,208	\$0	\$94,683
					\$78,991	\$0	\$208,223	\$59,312	\$0	\$346,526
-- Total WBS 9115.01										
4,800										
\$342,294										
\$902,299										
\$267,020										
\$1,501,613										
Plant air pipe	MECH	U.C. per Lf	1	CN-PIPE	17.58	0	5.4	0	0	42.98
		2,000.00	2,000	\$37.58	\$75,160	\$0	\$10,800	\$0	\$0	\$86,960
Breathing air pipe	MECH	U.C. per Lf	1.2	CN-PIPE	45,098	0	12.9	0	0	57,996
		2,000.00	2,400	\$37.58	\$90,192	\$0	\$25,800	\$0	\$0	\$115,992
Plant water pipe	MECH	U.C. per Lf	1	CN-PIPE	37.58	0	5.4	0	0	42.98
		2,000.00	2,000	\$37.58	\$75,160	\$0	\$10,800	\$0	\$0	\$86,960
Fire pipe for fabric structure	FP	U.C. per Sf	0		0	0	0	2.5	0	2.5
		26,000.00	0		\$0	\$0	\$0	\$65,000	\$0	\$65,000
Product transfer spray	MECH	U.C. per Lf	1	CN-PIPE	37.58	0	5.4	0	0	42.98
		800.00	800	\$37.58	\$30,064	\$0	\$4,320	\$0	\$0	\$34,384
Subtotal WBS 9115.02										
Sales Tax					\$270,576	\$0	\$51,720	\$65,000	\$0	\$387,296
INEEL Org Labor/Subcontractor Overheads					\$0	\$0	\$2,588	\$0	\$0	\$2,588
Escalation					\$113,461	\$0	\$22,772	\$17,225	\$0	\$153,458
Contingency					\$34,294	\$0	\$8,883	\$7,343	\$0	\$46,520
					\$125,499	\$0	\$26,188	\$26,870	\$0	\$177,558
-- Total WBS 9115.02										
7,200										
\$543,830										
\$109,150										
\$116,438										
\$769,418										
Power conduit	ELEC	U.C. per Lf	0.5	CN-ELEC	17.08	0	6.8	0	0	23.88
		1,000.00	500	\$34.12	\$17,080	\$0	\$6,800	\$0	\$0	\$23,880
Lighting conduit	ELEC	U.C. per Lf	0.25	CN-ELEC	8.53	0	1	0	0	9.53
		2,000.00	500	\$34.12	\$17,060	\$0	\$2,000	\$0	\$0	\$19,060
Subtotal WBS 9116.01										
Sales Tax					\$34,120	\$0	\$8,800	\$0	\$0	\$42,920
INEEL Org Labor/Subcontractor Overheads					\$0	\$0	\$440	\$0	\$0	\$440
Escalation					\$14,308	\$0	\$3,675	\$0	\$0	\$18,182
Contingency					\$4,325	\$0	\$1,171	\$0	\$0	\$5,496
					\$15,828	\$0	\$4,286	\$0	\$0	\$20,114
-- Total WBS 9116.01										
1,000										
\$68,578										
\$18,671										
\$87,149										

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC

05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
--	WBS 9116.02									
	ELEC	U.C. per LF 6,000.00	0.08 480	CN-ELEC \$34.12	2.73 \$16,378	0 \$0	8.4 \$50,400	0 \$0	0 \$0	11.13 \$66,778
	ELEC	U.C. per LF 20,000.00	0.008 180	CN-ELEC \$34.12	0.273 \$6,459	0 \$0	0.18 \$3,600	0 \$0	0 \$0	0.453 \$9,059
	ELEC	U.C. per LF 10,000.00	0.008 80	CN-ELEC \$34.12	0.273 \$2,730	0 \$0	0.5 \$5,000	0 \$0	0 \$0	0.773 \$7,730
	Subtotal				\$24,568	\$0	\$59,000	\$0	\$0	\$83,568
	Sales Tax				\$0	\$0	\$2,950	\$0	\$0	\$2,950
	INEEL Org Labor/Subcontractor Overheads				\$10,301	\$0	\$26,977	\$0	\$0	\$36,279
	Escalation				\$3,114	\$0	\$7,852	\$0	\$0	\$10,966
	Contingency				\$11,394	\$0	\$28,734	\$0	\$0	\$40,128
--	Total WBS 9116.02		720		\$49,376	\$0	\$124,513	\$0	\$0	\$173,889
--	WBS 9116.04									
	ELEC	U.C. per Ea 4.00	16 64	CN-ELEC \$34.12	546.92 \$2,184	0 \$0	4000 \$16,000	0 \$0	0 \$0	456.92 \$18,184
	ELEC	U.C. per Ea 6.00	8 48	CN-ELEC \$34.12	272.96 \$1,638	0 \$0	200 \$1,200	0 \$0	0 \$0	472.96 \$2,838
	ELEC	U.C. per Ea 160.00	1 160	CN-ELEC \$34.12	34.12 \$5,116	0 \$0	150 \$22,500	0 \$0	0 \$0	184.12 \$27,616
	ELEC	U.C. per Ea 1.00	60 60	CN-ELEC \$34.12	2047.2 \$2,047	0 \$0	83000 \$83,000	0 \$0	0 \$0	85047.2 \$85,047
	ELEC	U.C. per Ea 10.00	10 100	CN-ELEC \$34.12	341.2 \$3,412	0 \$0	1500 \$15,000	0 \$0	0 \$0	1841.2 \$18,412
	Subtotal				\$14,399	\$0	\$137,700	\$0	\$0	\$152,099
	Sales Tax				\$0	\$0	\$6,885	\$0	\$0	\$6,885
	INEEL Org Labor/Subcontractor Overheads				\$6,038	\$0	\$60,828	\$0	\$0	\$66,867
	Escalation				\$1,825	\$0	\$18,328	\$0	\$0	\$20,151
	Contingency				\$6,678	\$0	\$87,062	\$0	\$0	\$73,740
--	Total WBS 9116.04		422		\$28,940	\$0	\$290,601	\$0	\$0	\$319,541
--	WBS 9116.05									
	ELEC	U.C. per Ea 60.00	6 300	CN-ELEC \$34.12	204.72 \$10,236	0 \$0	800 \$40,000	0 \$0	0 \$0	1004.72 \$50,236
	General building light									

Project Name:
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

DIA CUSTOM GROUPING REPORT 2T

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	U.C. per Ea	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
	ELEC	50.00		1.5	CN-ELEC	51.18	0	280	0	0	331.16
Small area light				76	\$34.12	\$2,569	\$0	\$14,000	\$0	\$0	\$16,559
Subtotal	WBS 9116.05					\$12,795	\$0	\$54,000	\$0	\$0	\$66,795
Sales Tax						\$0	\$0	\$2,700	\$0	\$0	\$2,700
INEEL Org Labor/Subcontractor Overheads						\$5,365	\$0	\$23,776	\$0	\$0	\$29,141
Escalation						\$1,822	\$0	\$7,187	\$0	\$0	\$8,808
Contingency						\$5,935	\$0	\$26,299	\$0	\$0	\$32,233
- Total WBS 9116.05				376		\$26,717	\$0	\$113,961	\$0	\$0	\$139,678
- WBS 9116.06				0.036		1.228	0	2	0	0	3.228
Process area grounding	ELEC	1,200.00		43	\$34.12	\$1,474	\$0	\$2,400	\$0	\$0	\$3,874
Ground rods	ELEC	20.00		1.5	CN-ELEC	51.18	0	30	0	0	81.18
				30	\$34.12	\$1,024	\$0	\$600	\$0	\$0	\$1,624
Wire connections	ELEC	50.00		0.35	CN-ELEC	11,942	0	5	0	0	18,942
				18	\$34.12	\$597	\$0	\$250	\$0	\$0	\$847
Subtotal	WBS 9116.06					\$3,095	\$0	\$3,250	\$0	\$0	\$6,345
Sales Tax						\$0	\$0	\$163	\$0	\$0	\$163
INEEL Org Labor/Subcontractor Overheads						\$1,288	\$0	\$1,431	\$0	\$0	\$2,729
Escalation						\$392	\$0	\$433	\$0	\$0	\$825
Contingency						\$1,435	\$0	\$1,583	\$0	\$0	\$3,018
- Total WBS 9116.06				91		\$6,220	\$0	\$6,859	\$0	\$0	\$13,079
Subtotal 02						\$942,429	\$69,730	\$2,100,970	\$463,300	\$0	\$3,566,429
Sales Tax						\$0	\$0	\$105,049	\$0	\$0	\$105,049
INEEL Org Labor/Subcontractor Overheads						\$395,189	\$26,047	\$925,050	\$114,236	\$0	\$1,469,521
Escalation						\$119,449	\$7,671	\$279,604	\$61,674	\$0	\$468,198
Contingency						\$437,120	\$27,704	\$1,023,202	\$186,733	\$0	\$1,676,759
- Total 02				17,379		\$1,894,187	\$120,051	\$4,433,874	\$817,843	\$0	\$7,285,955

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **DIA CUSTOM GROUPING REPORT 2T**
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: **INEEL**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
--	03									
--	WBS 9113.03									
	Admin building	U.C. per cf 70,000.00	0		\$0	\$0	\$0	\$595,000	0	\$595,000
	Subtotal WBS 9113.03				\$0	\$0	\$0	\$595,000	\$0	\$595,000
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$0	\$0	\$0	\$124,950	\$0	\$124,950
	Escalation				\$0	\$0	\$0	\$84,292	\$0	\$84,292
	Contingency				\$0	\$0	\$0	\$235,272	\$0	\$235,272
--	Total WBS 9113.03				\$0	\$0	\$0	\$1,019,514	\$0	\$1,019,514
	Subtotal 03				\$0	\$0	\$0	\$595,000	\$0	\$595,000
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$0	\$0	\$0	\$124,950	\$0	\$124,950
	Escalation				\$0	\$0	\$0	\$84,292	\$0	\$84,292
	Contingency				\$0	\$0	\$0	\$235,272	\$0	\$235,272
-	Total 03				\$0	\$0	\$0	\$1,019,514	\$0	\$1,019,514

Project Name:
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

DIA CUMULUM GROUPING REPORT 2T

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const	Eqp	Matl	SIC	Other	TOTAL*
--	04 WBS 9120										
	Utilities from INTEC										
	GEN										
		1.00	0		\$0	\$0	\$0	\$0	2000000	\$0	2000000
	Memo: This LS number comes from the Title I design package estimate. for details see estimate file number 2657										
	Subtotal WBS 9120				\$0	\$0	\$0	\$0	\$2,000,000	\$0	\$2,000,000
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$0	\$0	\$0	\$0	\$420,000	\$0	\$420,000
	Escalation				\$0	\$0	\$0	\$0	\$216,106	\$0	\$216,106
	Contingency				\$0	\$0	\$0	\$0	\$790,832	\$0	\$790,832
--	Total WBS 9120				\$0	\$0	\$0	\$0	\$3,426,938	\$0	\$3,426,938
	Subtotal 04				\$0	\$0	\$0	\$0	\$2,000,000	\$0	\$2,000,000
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$0	\$0	\$0	\$0	\$420,000	\$0	\$420,000
	Escalation				\$0	\$0	\$0	\$0	\$216,106	\$0	\$216,106
	Contingency				\$0	\$0	\$0	\$0	\$790,832	\$0	\$790,832
-	Total 04				\$0	\$0	\$0	\$0	\$3,426,938	\$0	\$3,426,938

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC:
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
-	05									
-	WBS 9102.02									
Sump ex	GEN	U.C. per cy 2,700.00	0	1.85 \$4,995	1.95 \$5,285	0	0	0	0	3.8 \$10,280
Sump backfill	GEN	U.C. per cy 2,700.00	0	14.8 \$39,980	1.45 \$3,915	0	0	0	0	16.25 \$43,875
Truck scales ex	GEN	U.C. per cy 1,120.00	0	1.85 \$2,072	1.95 \$2,184	0	0	0	0	3.8 \$4,258
Truck scales backfill	GEN	U.C. per cy 11,200.00	0	14.8 \$165,780	1.45 \$16,240	0	0	0	0	16.25 \$182,000
Subtotal	WBS 9102.02				\$212,787	\$27,804	\$0	\$0	\$0	\$240,391
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL Org Labor/Subcontractor Overheads					\$89,228	\$11,575	\$0	\$0	\$0	\$100,803
Escalation					\$28,970	\$3,499	\$0	\$0	\$0	\$30,469
Contingency					\$88,695	\$12,803	\$0	\$0	\$0	\$111,499
-	Total WBS 9102.02				\$427,680	\$55,481	\$0	\$0	\$0	\$483,162
-	WBS 9103.02									
Truck scales	GEN	U.C. per cy 120.00	0	250 \$30,000	50 \$6,000	200	200	0	0	500 \$80,000
Sump	GEN	U.C. per cy 55.00	0	250 \$13,750	50 \$2,750	200	200	0	0	500 \$27,500
Storage pad	GEN	U.C. per cy 1,770.00	0	250 \$442,500	20 \$35,400	200	200	0	0	470 \$831,900
Subtotal	WBS 9103.02				\$486,250	\$44,150	\$389,000	\$0	\$0	\$919,400
Sales Tax					\$0	\$0	\$19,450	\$0	\$0	\$19,450
INEEL Org Labor/Subcontractor Overheads					\$203,899	\$18,513	\$171,275	\$0	\$0	\$393,688
Escalation					\$61,630	\$5,598	\$51,789	\$0	\$0	\$118,998
Contingency					\$225,534	\$20,478	\$189,448	\$0	\$0	\$435,460
-	Total WBS 9103.02				\$977,313	\$88,737	\$820,943	\$0	\$0	\$1,886,994
-	WBS 9111.03									
60" Truck scales	GEN	U.C. per Ea 2.00	80 160	CN-MILL \$32.92	2633.6 \$5,287	1000 \$2,000	38200 \$76,400	0 \$0	0 \$0	41833.6 \$83,667
2tn Flatbed truck	GEN	U.C. per Ea 2.00	0	0	0	0	40000 \$80,000	0 \$0	0 \$0	40000 \$80,000
4cy Transit mix trucks	GEN	U.C. per Ea 2.00	0	0	0	0	200000 \$400,000	0 \$0	0 \$0	200000 \$400,000

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name:
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

DIA CUSTOM GROUPING REPORT 2T

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
	GEN	U.C. per Ea								
	Roll-off handling truck	1.00	0		\$0	\$0	130000	\$0	\$0	\$130,000
	Subtotal WBS 9111.03				\$5,287	\$2,000	\$886,400	\$0	\$0	\$893,687
	Sales Tax				\$0	\$0	\$34,320	\$0	\$0	\$34,320
	INEEL Org Labor/Subcontractor Overheads				\$2,209	\$839	\$302,220	\$0	\$0	\$305,267
	Escalation				\$688	\$253	\$91,348	\$0	\$0	\$92,270
	Contingency				\$2,443	\$828	\$334,286	\$0	\$0	\$337,657
	-- Total WBS 9111.03		160		\$10,667	\$4,020	\$1,448,674	\$0	\$0	\$1,463,181
	-- WBS 9111.04									
	MECH	U.C. per Ea								
	5000gal Water tank	2.00	20	CN-PIPE	751.6	0	7500	0	0	8251.6
			40		\$1,503	\$0	\$15,000	\$0	\$0	\$16,503
	MECH	U.C. per Ea								
	500gpm Sump pump	2.00	20	CN-PIPE	751.6	0	2465	0	0	3218.6
			40		\$1,503	\$0	\$4,930	\$0	\$0	\$6,433
	MECH	U.C. per Ea								
	50gpm Washdown pump	2.00	15	CN-PIPE	563.7	0	1800	0	0	2363.7
			30		\$1,127	\$0	\$3,600	\$0	\$0	\$4,727
	MECH	U.C. per Hr								
	Crane usage	20.00	1	CN-EQMD	33.2	50	0	0	0	83.2
			20		\$1,014	\$1,000	\$0	\$0	\$0	\$1,684
	Subtotal WBS 9111.04				\$4,798	\$1,000	\$23,530	\$0	\$0	\$29,328
	Sales Tax				\$0	\$0	\$1,177	\$0	\$0	\$1,177
	INEEL Org Labor/Subcontractor Overheads				\$2,012	\$419	\$10,360	\$0	\$0	\$12,791
	Escalation				\$808	\$127	\$3,131	\$0	\$0	\$3,866
	Contingency				\$2,225	\$464	\$11,459	\$0	\$0	\$14,149
	-- Total WBS 9111.04		130		\$9,643	\$2,010	\$48,658	\$0	\$0	\$61,311
	-- WBS 9115.02									
	MECH	U.C. per Lf								
	Potable water pipe	1,000.00	1.2	CN-PIPE	45,086	0	5.4	0	0	50,486
			1,200		\$45,086	\$0	\$5,400	\$0	\$0	\$50,486

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
		U.C. per Lf		GN-PIPE						
	MECH	100.00	200	\$37.58	\$7,516	\$0	\$2,000	\$0	\$0	\$9,516
Memo: This pipe only goes to the storage tanks near the sump.										
Subtotal	WBS 9115.02				\$52,612	\$0	\$7,400	\$0	\$0	\$60,012
	Sales Tax				\$0	\$0	\$370	\$0	\$0	\$370
	INEEL Org Labor/Subcontractor Overheads				\$22,062	\$0	\$3,258	\$0	\$0	\$25,320
	Escalation				\$6,686	\$0	\$985	\$0	\$0	\$7,671
	Contingency				\$24,403	\$0	\$3,604	\$0	\$0	\$28,007
- Total	WBS 9115.02		1,400		\$105,745	\$0	\$15,617	\$0	\$0	\$121,362
Subtotal	05				\$761,714	\$74,754	\$1,106,330	\$0	\$0	\$1,942,798
	Sales Tax				\$0	\$0	\$65,317	\$0	\$0	\$65,317
	INEEL Org Labor/Subcontractor Overheads				\$319,410	\$31,347	\$487,113	\$0	\$0	\$837,869
	Escalation				\$96,544	\$9,475	\$147,234	\$0	\$0	\$253,253
	Contingency				\$353,300	\$34,673	\$538,798	\$0	\$0	\$926,771
- Total	05		1,690		\$1,530,968	\$150,248	\$2,334,792	\$0	\$0	\$4,016,008

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
06										
--	WBS (103.01)									
	Light pole bases	U.C. per cy 10.00	0		230 \$2,300	0 \$0	150 \$1,500	0 \$0	0 \$0	380 \$3,800
	Duct bank concrete	U.C. per cy 640.00	0		150 \$96,000	0 \$0	110 \$70,400	0 \$0	0 \$0	260 \$166,400
	Main transformer pad	U.C. per cy 15.00	0		150 \$2,250	0 \$0	150 \$2,250	0 \$0	0 \$0	300 \$4,500
	Subtotal WBS (103.01)				\$100,550	\$0	\$74,150	\$0	\$0	\$174,700
	Sales Tax				\$0	\$0	\$3,708	\$0	\$0	\$3,708
	INEEL Org Labor/Subcontractor Overheads				\$42,164	\$0	\$32,848	\$0	\$0	\$74,812
	Escalation				\$12,744	\$0	\$9,868	\$0	\$0	\$22,612
	Contingency				\$46,637	\$0	\$36,112	\$0	\$0	\$82,749
--	Total WBS (103.01)				\$202,095	\$0	\$156,496	\$0	\$0	\$358,591
--	WBS 9102.01									
	Cleaning & Grubbing	U.C. per Ac 10.00	0		150 \$1,500	140 \$1,400	0 \$0	0 \$0	0 \$0	290 \$2,900
	Site grading	U.C. per SY 30,000.00	0		0.2 \$6,000	0.3 \$9,000	0 \$0	0 \$0	0 \$0	0.5 \$15,000
	Paving binder course	U.C. per SY 30,000.00	0		0.5 \$15,000	0.4 \$12,000	5.2 \$156,000	0 \$0	0 \$0	6.1 \$183,000
	Paving wear course	U.C. per SY 30,000.00	0		0.35 \$10,500	0.3 \$9,000	3.15 \$94,500	0 \$0	0 \$0	3.8 \$114,000
	Security fence	U.C. per LF 2,500.00	0		4 \$10,000	2 \$6,000	9 \$22,500	0 \$0	0 \$0	15 \$37,500
	Subtotal WBS 9102.01				\$43,000	\$36,400	\$273,000	\$0	\$0	\$352,400
	Sales Tax				\$0	\$0	\$13,650	\$0	\$0	\$13,650
	INEEL Org Labor/Subcontractor Overheads				\$23,151	\$19,013	\$161,539	\$0	\$0	\$203,702
	Escalation				\$5,907	\$4,948	\$40,023	\$0	\$0	\$50,879
	Contingency				\$21,617	\$16,108	\$146,464	\$0	\$0	\$186,189
--	Total WBS 9102.01				\$93,675	\$78,470	\$634,676	\$0	\$0	\$806,821
--	WBS 9102.02									
	Duckbank ex	U.C. per cy 1,075.00	0		1.95 \$2,096	1.45 \$1,559	0 \$0	0 \$0	0 \$0	3.4 \$3,655
	Duckbank backfill	U.C. per cy 1,075.00	0		19.8 \$21,285	0 \$0	0 \$0	0 \$0	0 \$0	19.8 \$21,285

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*Note: Total Excludes Non-Labor Markups, and OFC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
Pipe trench ex	GEN	U.C. per cy 20,300.00	0	0	1.85 \$37,555	1.95 \$39,585	0 \$0	0 \$0	0 \$0	3.8 \$77,140
Pipe trench backfill	GEN	U.C. per cy 20,300.00	0	0	14.8 \$300,440	1.45 \$28,435	0 \$0	0 \$0	0 \$0	16.25 \$329,875
Subtotal	WBS 9102.02				\$381,376	\$70,579	\$0	\$0	\$0	\$431,955
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL Org Labor/Subcontractor Overheads					\$151,538	\$29,596	\$0	\$0	\$0	\$181,132
Escalation					\$45,803	\$8,946	\$0	\$0	\$0	\$54,749
Contingency					\$167,615	\$32,738	\$0	\$0	\$0	\$200,351
-- Total WBS 9102.02					\$726,330	\$141,866	\$0	\$0	\$0	\$868,186
-- WBS 9102.03										
Ductbank (power)	ELEC	U.C. per lf 550.00	0	0	7.1 \$3,905	0 \$0	6.6 \$3,630	0 \$0	0 \$0	13.7 \$7,535
Ductbank (comm)	ELEC	U.C. per lf 550.00	0	0	1.9 \$1,045	0 \$0	1.65 \$908	0 \$0	0 \$0	3.55 \$1,953
Ductbank (area lights)	ELEC	U.C. per lf 2,000.00	0	0	1.6 \$3,200	0 \$0	1.15 \$2,300	0 \$0	0 \$0	2.75 \$5,500
Fire pipe	FP	U.C. per lf 450.00	0	0	5.65 \$2,543	2 \$900	13 \$5,850	0 \$0	0 \$0	20.65 \$9,293
Fire hydrants	FP	U.C. per Ea 10.00	0	0	140 \$1,400	30 \$300	1250 \$12,500	0 \$0	0 \$0	1420 \$14,200
Sewer pipe	GEN	U.C. per lf 450.00	0	0	2.9 \$1,305	0 \$0	2.9 \$1,305	0 \$0	0 \$0	5.8 \$2,610
Water pipe	GEN	U.C. per lf 900.00	0	0	2 \$1,800	0 \$0	1.25 \$1,125	0 \$0	0 \$0	3.25 \$2,925
Storm drain (12")	GEN	U.C. per lf 500.00	0	0	5 \$2,500	1.05 \$525	12.4 \$6,200	0 \$0	0 \$0	18.45 \$9,225
Storm drain (24")	GEN	U.C. per lf 370.00	0	0	6.6 \$2,442	1.35 \$500	25.5 \$9,435	0 \$0	0 \$0	33.45 \$12,377

DIA CUSTOM GROUPING REPORT 2T

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
		U.C. per H								
Storm drain (36')	GEN	150.00	0		10.5 \$1,575	6.55 \$863	47 \$7,050	0 \$0	0 \$0	64.05 \$9,608
Subtotal	WBS 9102.03				\$21,715	\$3,207	\$50,303	\$0	\$0	\$75,224
Sales Tax					\$0	\$0	\$2,515	\$0	\$0	\$2,515
INEEL Org Labor/Subcontractor Overheads					\$9,614	\$1,500	\$24,634	\$0	\$0	\$35,748
Escalation					\$2,798	\$420	\$6,916	\$0	\$0	\$10,134
Contingency					\$10,238	\$1,538	\$25,310	\$0	\$0	\$37,086
- Total WBS 9102.03					\$44,364	\$6,665	\$109,679	\$0	\$0	\$160,708
- WBS 9116.04	ELEC									
4160 to 480 transformer		U.C. per Ea	30	CN-ELEC	1023.6 \$1,024	0 \$0	33000 \$33,000	0 \$0	0 \$0	34023.6 \$34,024
Switchgear		U.C. per Ea	40	CN-ELEC	1364.8 \$1,365	0 \$0	210000 \$210,000	0 \$0	0 \$0	211364.8 \$211,365
Subtotal	WBS 9116.04				\$2,388	\$0	\$243,000	\$0	\$0	\$245,388
Sales Tax					\$0	\$0	\$12,150	\$0	\$0	\$12,150
INEEL Org Labor/Subcontractor Overheads					\$1,002	\$0	\$106,992	\$0	\$0	\$107,994
Escalation					\$303	\$0	\$32,339	\$0	\$0	\$32,642
Contingency					\$1,108	\$0	\$116,344	\$0	\$0	\$119,452
- Total WBS 9116.04			70		\$4,800	\$0	\$612,826	\$0	\$0	\$617,626
- WBS 9116.05	ELEC									
Light poles		U.C. per Ea	0	CN-ELEC	0 \$0	68 \$680	1380 \$13,800	0 \$0	0 \$0	1448 \$14,480
Area lights		U.C. per Ea	0	CN-ELEC	0 \$0	15 \$160	470 \$4,700	0 \$0	0 \$0	485 \$4,850
Subtotal	WBS 9116.05				\$0	\$630	\$16,500	\$0	\$0	\$19,330
Sales Tax					\$0	\$0	\$925	\$0	\$0	\$925
INEEL Org Labor/Subcontractor Overheads					\$0	\$348	\$8,145	\$0	\$0	\$8,494
Escalation					\$0	\$105	\$2,482	\$0	\$0	\$2,587
Contingency					\$0	\$385	\$9,010	\$0	\$0	\$9,395
- Total WBS 9116.05					\$0	\$1,868	\$39,042	\$0	\$0	\$40,711
- WBS 9116.06	ELEC									
Transformer grounding		U.C. per Lf	0.036	CN-ELEC	1.228 \$491	0 \$0	2 \$800	0 \$0	0 \$0	3.228 \$1,291

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*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
	Subtotal WBS 9116.06				\$491	\$0	\$800	\$0	\$0	\$1,291
	Sales Tax				\$0	\$0	\$40	\$0	\$0	\$40
	INEEL Org Labor/Subcontractor Overheads				\$206	\$0	\$352	\$0	\$0	\$558
	Escalation				\$62	\$0	\$106	\$0	\$0	\$169
	Contingency				\$228	\$0	\$390	\$0	\$0	\$618
	- Total WBS 9116.06		14		\$988	\$0	\$1,688	\$0	\$0	\$2,676
	Subtotal 06				\$629,620	\$111,016	\$659,763	\$0	\$0	\$1,300,289
	Sales Tax				\$0	\$0	\$32,988	\$0	\$0	\$32,988
	INEEL Org Labor/Subcontractor Overheads				\$227,672	\$50,457	\$334,311	\$0	\$0	\$612,439
	Escalation				\$67,617	\$14,419	\$91,716	\$0	\$0	\$173,762
	Contingency				\$247,443	\$52,768	\$335,630	\$0	\$0	\$635,840
	- Total 06		84		\$1,072,253	\$228,659	\$1,454,396	\$0	\$0	\$2,755,308

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Orq/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
--	WBS 1100									
00400100	6340 Construction Coordinator or Manager	U.C. per Wk 50.00	40 2,000	E30 \$35.80	1432 \$71,600	0 \$0	0 \$0	0 \$0	0 \$0	1432 \$71,600
00400200	6340 Construction Engineer	U.C. per Wk 50.00	40 2,000	E30 \$35.80	1432 \$71,600	0 \$0	0 \$0	0 \$0	0 \$0	1432 \$71,600
00400400	6340 ES&H	U.C. per Wk 50.00	20 1,000	E30 \$35.80	718 \$35,800	0 \$0	0 \$0	0 \$0	0 \$0	718 \$35,800
00400500	6340 Quality	U.C. per Wk 50.00	20 1,000	E30 \$35.80	718 \$35,800	0 \$0	0 \$0	0 \$0	0 \$0	718 \$35,800
00401400	6340 Pool Account (Direct Hours @ \$24 Per Hour)	U.C. per Hour 6,000.00	1 6,000	CN-CMINTE \$15.14	15.14 \$90,840	0 \$0	0 \$0	0 \$0	0 \$0	15.14 \$90,840
	Subtotal WBS 1100				\$305,640	\$0	\$0	\$0	\$0	\$305,640
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$345,373	\$0	\$0	\$0	\$0	\$345,373
	Escalation				\$58,135	\$0	\$0	\$0	\$0	\$58,135
	Contingency				\$141,830	\$0	\$0	\$0	\$0	\$141,830
--	Total WBS 1100		12,000		\$850,978	\$0	\$0	\$0	\$0	\$850,978
--	WBS 1110									
	Initiate Hazards Analysis Process	U.C. per Lot 1.00	10 10	E30 \$35.80	358 \$358	0 \$0	0 \$0	0 \$0	0 \$0	358 \$358
	Assemble Planning Team	U.C. per Lot 1.00	50 50	E30 \$35.80	1790 \$1,790	0 \$0	0 \$0	0 \$0	0 \$0	1790 \$1,790
	Develop Initial JSA & Input To Work Plans	U.C. per Lot 1.00	40 40	E30 \$35.80	1432 \$1,432	0 \$0	0 \$0	0 \$0	0 \$0	1432 \$1,432
	Project Continuous Surveillance (2 Hours / Day)	U.C. per Wk 50.00	8 400	E30 \$35.80	288.4 \$14,320	0 \$0	0 \$0	0 \$0	0 \$0	288.4 \$14,320
	Prepare Supporting Project Documents	U.C. per Lot 1.00	25 25	E30 \$35.80	895 \$895	0 \$0	0 \$0	0 \$0	0 \$0	895 \$895
	Develop Work Order	U.C. per Lot 1.00	40 40	E30 \$35.80	1432 \$1,432	0 \$0	0 \$0	0 \$0	0 \$0	1432 \$1,432
	Approve Work Orders - Subject Matter Expert (SME) (5 Hours / SME)	U.C. per SME 1.00	5 5	E30 \$35.80	179 \$179	0 \$0	0 \$0	0 \$0	0 \$0	179 \$179
	Approve Work Orders - CM	U.C. per Lot 1.00	5 5	E30 \$35.80	179 \$179	0 \$0	0 \$0	0 \$0	0 \$0	179 \$179

INEEL
 *Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name:
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

DIA CUSTOM GROUPING REPORT 2T

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
	6340	U.C. per Wk		E30	143.2	0	0	0	0	143.2
Schedule Work On POD (1 Hour / Day)		50.00	200	\$35.80	\$7,160	\$0	\$0	\$0	\$0	\$7,160
	6340	U.C. per Ea		E30	716	0	0	0	0	716
Outages (20 Hours / Outage)		50.00	1,000	\$35.80	\$35,800	\$0	\$0	\$0	\$0	\$35,800
	6340	U.C. per Ea		E30	716	0	0	0	0	716
Subsurface Investigation (20 Hours / Si)		6.00	120	\$35.80	\$4,296	\$0	\$0	\$0	\$0	\$4,296
00401400	6340	U.C. per Hour	1	CN-CMINT	15.14	0	0	0	0	15.14
Pool Account (Direct Hours @ \$24 Per Hour)		2,000.00	2,000	\$15.14	\$30,280	\$0	\$0	\$0	\$0	\$30,280
Subtotal WBS 1110										
Sales Tax					\$98,121	\$0	\$0	\$0	\$0	\$98,121
INEEL Org Labor/Subcontractor Overheads					\$0	\$0	\$0	\$0	\$0	\$0
Escalation					\$110,877	\$0	\$0	\$0	\$0	\$110,877
Contingency					\$18,683	\$0	\$0	\$0	\$0	\$18,683
					\$45,532	\$0	\$0	\$0	\$0	\$45,532
-- Total WBS 1110			3,895		\$273,193	\$0	\$0	\$0	\$0	\$273,193
-- WBS 3400										
00101000	6710	U.C. per Drwg	4	E04	128.56	0	0	0	0	128.56
Site Vicinity Map		2.00	8	\$32.14	\$257	\$0	\$0	\$0	\$0	\$257
	6710	U.C. per Drwg	50	E04	1607	0	0	0	0	1607
Civil Design Including design, drafting, specification, calculations, reviews		20.00	1,000	\$32.14	\$32,140	\$0	\$0	\$0	\$0	\$32,140
00102000	6710	U.C. per Drwg	50	E25	1901.5	0	0	0	0	1901.5
Structural Design		20.00	1,000	\$38.03	\$38,030	\$0	\$0	\$0	\$0	\$38,030
00103000	6710	U.C. per Drwg	50	E23	1901.5	0	0	0	0	1901.5
Architectural Design		20.00	1,000	\$38.03	\$38,030	\$0	\$0	\$0	\$0	\$38,030
00104000	6710	U.C. per Drwg	50	E11	1649	0	0	0	0	1649
Process or Equipment Design		30.00	1,500	\$32.98	\$49,470	\$0	\$0	\$0	\$0	\$49,470
00105000	6710	U.C. per Drwg	50	E11	1649	0	0	0	0	1649
HVAC Design		20.00	1,000	\$32.98	\$32,980	\$0	\$0	\$0	\$0	\$32,980
00106000	6710	U.C. per Drwg	50	E11	1649	0	0	0	0	1649
Piping Design		20.00	1,000	\$32.98	\$32,980	\$0	\$0	\$0	\$0	\$32,980
00107000	6710	U.C. per Drwg	50	E11	1649	0	0	0	0	1649
Fire Protection Design		20.00	1,000	\$32.98	\$32,980	\$0	\$0	\$0	\$0	\$32,980
00108000	6710	U.C. per Drwg	50	E11	1649	0	0	0	0	1649
Instrumentation Design		40.00	2,000	\$32.98	\$65,960	\$0	\$0	\$0	\$0	\$65,960
00109000	6710	U.C. per Drwg	50	E08	1756	0	0	0	0	1756
Electrical Design		30.00	1,500	\$35.12	\$52,680	\$0	\$0	\$0	\$0	\$52,680

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*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

DIA CUSTOM GROUPING REPORT 2T

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
		U.C. per Ea								
Special Studies	6710	10.00	160	E1	\$276.8	0	0	0	0	\$276.8
			1,600	\$32.98	\$52,768	\$0	\$0	\$0	\$0	\$52,768
Peer review	6710	500.00	1	E11	32.98	0	0	0	0	32.98
			500	\$32.98	\$16,490	\$0	\$0	\$0	\$0	\$16,490
Design Supervision @ 11.5%	6710	13,000.00	0.115	Z09	4.586	0	0	0	0	4.586
			1,485	\$39.88	\$59,621	\$0	\$0	\$0	\$0	\$59,621
Subtotal WBS 3400					\$504,386	\$0	\$0	\$0	\$0	\$504,386
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL Org Labor/Subcontractor Overheads					\$569,956	\$0	\$0	\$0	\$0	\$569,956
Escalation					\$95,939	\$0	\$0	\$0	\$0	\$95,939
Contingency					\$292,570	\$0	\$0	\$0	\$0	\$292,570
-- Total WBS 3400			14,603		\$1,462,850	\$0	\$0	\$0	\$0	\$1,462,850
-- WBS 3700										
Cost Estimate - Title II / AFC	2240	200.00	1	F22	31.44	0	0	0	0	31.44
			200	\$31.44	\$6,288	\$0	\$0	\$0	\$0	\$6,288
Cost Estimating Management Support - 14% Of Estimating	2240	200.00	0.14	F22	4.402	0	0	0	0	4.402
			28	\$31.44	\$880	\$0	\$0	\$0	\$0	\$880
Total			228		\$18,447	\$0	\$0	\$0	\$0	\$18,447
Subtotal WBS 3700					\$7,168	\$0	\$0	\$0	\$0	\$7,168
Sales Tax					\$0	\$0	\$0	\$0	\$0	\$0
INEEL Org Labor/Subcontractor Overheads					\$6,360	\$0	\$0	\$0	\$0	\$6,360
Escalation					\$1,210	\$0	\$0	\$0	\$0	\$1,210
Contingency					\$3,689	\$0	\$0	\$0	\$0	\$3,689
-- Total WBS 3700			228		\$18,447	\$0	\$0	\$0	\$0	\$18,447
-- WBS 4100										
Inspection and Overview	7260	50.00	40	T12	1000.4	0	0	0	0	1000.4
			2,000	\$25.01	\$50,020	\$0	\$0	\$0	\$0	\$50,020
Vendor Data Review and Field Problems	7260	50.00	40	T12	1000.4	0	0	0	0	1000.4
			2,000	\$25.01	\$50,020	\$0	\$0	\$0	\$0	\$50,020
Inspection Plan Preparation	7260	1.00	40	T12	1000.4	0	0	0	0	1000.4
			40	\$25.01	\$1,000	\$0	\$0	\$0	\$0	\$1,000

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
	7260	U.C. per Hr	0.1	Z03	6,232	0	0	0	0	5,232
	Quality Assurance Supervision @ 10%	4,000.00	400	\$52.32	\$20,928	\$0	\$0	\$0	\$0	\$20,928
Subtotal	WBS 4100				\$121,968	\$0	\$0	\$0	\$0	\$121,968
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$108,552	\$0	\$0	\$0	\$0	\$108,552
	Escalation				\$20,585	\$0	\$0	\$0	\$0	\$20,585
	Contingency				\$50,221	\$0	\$0	\$0	\$0	\$50,221
-- Total	WBS 4100		4,440		\$301,327	\$0	\$0	\$0	\$0	\$301,327
--	WBS 5100									
	6210	U.C. per Wk	20	E30	716	0	0	0	0	716
	Project Manager Design	50.00	1,000	\$35.80	\$35,800	\$0	\$0	\$0	\$0	\$35,800
	6210	U.C. per Wk	40	E30	1432	0	0	0	0	1432
	Project Manager Const	50.00	2,000	\$35.80	\$71,600	\$0	\$0	\$0	\$0	\$71,600
	6210	U.C. per Hr	0.1	Z04	4,929	0	0	0	0	4,929
	Project Management - Management Support - 10% Of P.M.	800.00	80	\$49.29	\$3,943	\$0	\$0	\$0	\$0	\$3,943
Total										
Subtotal	WBS 5100				\$111,343	\$0	\$0	\$0	\$0	\$111,343
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$125,818	\$0	\$0	\$0	\$0	\$125,818
	Escalation				\$21,178	\$0	\$0	\$0	\$0	\$21,178
	Contingency				\$51,668	\$0	\$0	\$0	\$0	\$51,668
-- Total	WBS 5100		3,080		\$310,007	\$0	\$0	\$0	\$0	\$310,007
--	WBS 5110									
	6210	U.C. per Lot	40	E30	1432	0	0	0	0	1432
	Assemble Planning Team	1.00	40	\$35.80	\$1,432	\$0	\$0	\$0	\$0	\$1,432
	6210	U.C. per Ea	10	E30	358	0	0	0	0	358
	Initiate Work Control Form (WCF)	1.00	10	\$35.80	\$358	\$0	\$0	\$0	\$0	\$358
	6210	U.C. per Wk	4	E30	143.2	0	0	0	0	143.2
	Update WCF (1 Hour / Day)	50.00	200	\$35.80	\$7,160	\$0	\$0	\$0	\$0	\$7,160
	6210	U.C. per Lot	40	E30	1432	0	0	0	0	1432
	Initiate Hazards Analysis Process	1.00	40	\$35.80	\$1,432	\$0	\$0	\$0	\$0	\$1,432
	6210	U.C. per Lot	40	E30	1432	0	0	0	0	1432
	Prepare Supporting Project Documents	1.00	40	\$35.80	\$1,432	\$0	\$0	\$0	\$0	\$1,432
	6210	U.C. per Ea	40	E30	1432	0	0	0	0	1432
	Post-Job Review	1.00	40	\$35.80	\$1,432	\$0	\$0	\$0	\$0	\$1,432

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
		U.C. per Hr								
PM Management Support - 10% Of Total	6210	400.00	0.1	Z04	4,929	0	0	0	0	4,929
			40	\$49.29	\$1,972	\$0	\$0	\$0	\$0	\$1,972
Subtotal WBS 5110			410		\$42,370	\$0	\$0	\$0	\$0	\$42,370
WBS 5200										
Construction schedule	6340	U.C. per Mo	80	E30	2864	0	0	0	0	2864
		18.00	1,440	\$35.80	\$51,552	\$0	\$0	\$0	\$0	\$51,552
Cost reporting	6340	U.C. per Mo	80	E30	2864	0	0	0	0	2864
		18.00	1,440	\$35.80	\$51,552	\$0	\$0	\$0	\$0	\$51,552
Subtotal WBS 5200			2,880		\$287,067	\$0	\$0	\$0	\$0	\$287,067
WBS 5400										
Environmental Safety & Health	7100	U.C. per Wk	40	T16	876.8	0	0	0	0	876.8
		50.00	2,000	\$21.92	\$43,840	\$0	\$0	\$0	\$0	\$43,840
ES&H Management Support - 10% Of ES&H Total	7120	U.C. per Hr	0.1	Z03	5,232	0	0	0	0	5,232
		2,000.00	200	\$52.32	\$10,464	\$0	\$0	\$0	\$0	\$10,464
Subtotal WBS 5400			2,200		\$134,160	\$0	\$0	\$0	\$0	\$134,160
WBS 5500										
Radiological Control Technicians	7620	U.C. per Wk	20	U60	493.2	0	0	0	0	493.2
		50.00	1,000	\$24.66	\$24,660	\$0	\$0	\$0	\$0	\$24,660

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INEEL**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
		U.C. per Hr								
Radiation Control - Management Support - 10% OF RCT Total										
	7610	1,000.00	0.1	Z03	5,232	0	0	0	0	5,232
			100	\$52.32	\$5,232	\$0	\$0	\$0	\$0	\$5,232
Subtotal	WBS 5500				\$28,892	\$0	\$0	\$0	\$0	\$28,892
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$26,804	\$0	\$0	\$0	\$0	\$26,804
	Escalation				\$5,045	\$0	\$0	\$0	\$0	\$5,045
	Contingency				\$12,308	\$0	\$0	\$0	\$0	\$12,308
-- Total WBS 5500			1,100		\$73,849	\$0	\$0	\$0	\$0	\$73,849
Const Interface Doc (CID)										
	6710	1,000.00	5	E11	164.9	0	0	0	0	164.9
			5,000	\$32.98	\$164,900	\$0	\$0	\$0	\$0	\$164,900
Subtotal	WBS 6100				\$164,900	\$0	\$0	\$0	\$0	\$164,900
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$186,337	\$0	\$0	\$0	\$0	\$186,337
	Escalation				\$31,365	\$0	\$0	\$0	\$0	\$31,365
	Contingency				\$78,520	\$0	\$0	\$0	\$0	\$78,520
-- Total WBS 6100			5,000		\$459,123	\$0	\$0	\$0	\$0	\$459,123
V. D. on Material & Eq										
	6710	500.00	5	E11	164.9	0	0	0	0	164.9
			2,500	\$32.88	\$82,450	\$0	\$0	\$0	\$0	\$82,450
Subtotal	WBS 6200				\$82,450	\$0	\$0	\$0	\$0	\$82,450
	Sales Tax				\$0	\$0	\$0	\$0	\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$93,169	\$0	\$0	\$0	\$0	\$93,169
	Escalation				\$15,663	\$0	\$0	\$0	\$0	\$15,663
	Contingency				\$38,260	\$0	\$0	\$0	\$0	\$38,260
-- Total WBS 6200			2,500		\$229,561	\$0	\$0	\$0	\$0	\$229,561
Supervision										
	GEN	50.00	40	CN-SUPR	1600	0	0	0	0	1600
			2,000	\$40.00	\$80,000	\$0	\$0	\$0	\$0	\$80,000
Training										
	GEN	20.00	4	CN-LABR	120.36	0	0	0	0	120.36
			80	\$30.09	\$2,407	\$0	\$0	\$0	\$0	\$2,407

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*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name: **Staging, Storage, Stabilization, and Treatment Facility**
 Project Location: **INTEC**
 Estimate Number: **2959-2**

DIA CUSTOM GROUPING REPORT 2T

Client: **R. L. Davison**
 Prepared By: **J. C. Grenz**
 Estimate Type: **Conceptual**

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const Eqp	Matl	S/C	Other	TOTAL*
	GEN	U.C. per Lot		CN-LABR						
	Mobilization & Demobilization	1.00	0		\$0	\$20,000	\$0		\$0	\$20,000
	Subtotal WBS 9101.1		2,080		\$82,407	\$20,000	\$0		\$0	\$102,407
	Sales Tax				\$0	\$0	\$0		\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$34,558	\$8,387	\$0		\$0	\$42,942
	Escalation				\$10,445	\$2,535	\$0		\$0	\$12,980
	Contingency				\$38,222	\$8,276	\$0		\$0	\$47,498
	- Total WBS 9101.1				\$165,630	\$40,198	\$0		\$0	\$205,828
	- WBS 9101.2									
	Added Supervision	50.00	10	CN-SUPR \$40.00	400	\$0	\$0		\$0	\$400
	Additional Training	20.00	4	CN-LABR \$30.09	120.36	\$0	\$0		\$0	\$120.36
	Labor Impact - 5%	20,000.00	0.05	CN-LABR \$30.09	1,505	\$0	\$0		\$0	\$1,505
	Post Job Review	10.00	10	CN-SUPR \$40.00	400	\$0	\$0		\$0	\$400
	Subtotal WBS 9101.2		1,680		\$58,497	\$0	\$0		\$0	\$58,497
	Sales Tax				\$0	\$0	\$0		\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$23,691	\$0	\$0		\$0	\$23,691
	Escalation				\$7,161	\$0	\$0		\$0	\$7,161
	Contingency				\$29,205	\$0	\$0		\$0	\$29,205
	- Total WBS 9101.2				\$113,554	\$0	\$0		\$0	\$113,554
	Subtotal 07				\$1,737,399	\$20,000	\$0		\$0	\$1,757,399
	Sales Tax				\$0	\$0	\$0		\$0	\$0
	INEEL Org Labor/Subcontractor Overheads				\$1,813,345	\$8,387	\$0		\$0	\$1,821,732
	Escalation				\$317,081	\$2,535	\$0		\$0	\$319,616
	Contingency				\$864,293	\$9,276	\$0		\$0	\$873,569
	- Total 07		66,096		\$4,722,118	\$40,198	\$0		\$0	\$4,762,316

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Project Name:
 Staging, Storage, Stabilization, and Treatment Facility
 Project Location: INTEC
 Estimate Number: 2959-2

DIA CUSTOM GROUPING REPORT 2T

Client: R. L. Davison
 Prepared By: J. C. Grenz
 Estimate Type: Conceptual

LEVEL	Org/Subcontractor	QTY	Hrs	Crew/Rate	Labor	Const	Eqp	Matl	S/C	Other	TOTAL*
Subtotal	SSSTF				\$4,126,822	\$268,700		\$4,092,733	\$3,460,060	\$0	\$11,948,314
Sales Tax					\$0	\$0		\$204,637	\$0	\$0	\$204,637
INEEL Org	Labor/Subcontractor Overheads				\$2,820,930	\$116,578		\$1,845,840	\$743,555	\$0	\$5,526,904
Escalation					\$620,434	\$34,405		\$648,589	\$375,383	\$0	\$1,578,811
Contingency					\$1,964,401	\$125,905		\$2,007,539	\$1,373,699	\$0	\$5,471,545
Total SSSTF			75,249		\$9,532,588	\$545,588		\$8,699,337	\$5,952,698	\$0	\$24,730,210

INEEL

*Note: Total Excludes Non-Labor Markups, and OPC
 05/02/2000

Appendix D
Comment Response

10% DESIGN COMMENT RESOLUTION1

EPA Comments

Comments on the Draft 10% RD S.S.S.T.F.				
#	Pg.	Sect.	ISSUE	
			SUGGESTION/DISCUSSION	
			RESOLUTION	
1.	3	Tbl 1	<p>GENERAL: The basis for requirement should be in priority order of document hierarchy.</p> <p>A list of documents should be identified starting with the 1999 ROD. The SOW derives from the ROD, as do ARARs. Internal orders, BMPs, industry standards, etc. are lower order requirements.</p>	<p>Accept Comment. Document will be revised in BASIS OF REQUIREMENT section to reflect the hierarchy of the referenced documents. See revised T&FR document (origin of Table 1).</p>
2.	3	Tbl 1, 003	<p>The processing of wastes at the SSSTF does not guarantee that those wastes (or secondary wastes from decontamination) will be managed in the ICDF landfill or evaporation pond</p> <p>Modify phrase as follows: "The SSSTF shall process for on or off-site disposal, soil...."</p>	<p>Requirement has been deleted. See revised T&FR document (origin of Table 1).</p>
3.	3	Tbl 1, 005	<p>The operational life of the SSSTF will be for as long as CERCLA wastes require processing which is expected to far exceed 10 years.</p> <p>Recognize that the ICDF landfills will be operated as cells and that closure of the first cell does not correspond with the closure of the SSSTF.</p>	<p>Requirement has been changed to reflect a 30-year life - Standard DOE facility design life. See revised T&FR document (origin of Table 1).</p>
4.	3	Tbl 1, 006	<p>Designing the SSSTF to receive 80 trucks per 6</p> <p>Without working out the waste characterization procedures per</p>	<p>The number has been changed to TBD. See revised T&FR</p>

1 Bolder Comments were identified by the agencies as significant
07/19/00

Comments on the Draft 10% RD S.S.S.T.F.

Pg. Sect. ISSUE SUGGESTION/DISCUSSION RESOLUTION

			hr period should not be a requirement.	load, this requirement could mandate that facilities to stage 80 trucks per day are needed as one extreme or that laboratory capability to complete a truck load characterizations in <5min is required at the other extreme if only a single truck is used for transportation.	document (origin of Table 1). EDF #8 Operational Scenario will study and determine the appropriate through put for loads per day.
5.	3	Tbl 1, 007	The word, "accurately" needs to be defined to be useful as a requirement.	Suggest include "within ±1%" be included.	Requirement has been changed to indicate +/- 100 lbs. See revised T&FR document (origin of Table 1).
6.	4	Tbl 1, 008	See Comment on Table 1, 007.		Requirement has been deleted. See revised T&FR document (origin of Table 1).
7.	4	Tbl 1, 010	In light of the planned use of the ICDF Complex to stage wastes from other OU's for future disposal in the ICDF landfill, further discussion is needed on how to frame this requirement.	A) It may be advisable to subdivide into a #010a and 010b, where #010a addresses pre-ICDF landfill operations staging and #010b addresses post-ICDF landfill operations. B) Suggest #010a be written as, "The SSSTF shall include an area(s) of sufficient capacity for the staging and/or storage of bulk soils/debrils and containerized wastes from on-site CERCLA activities on an as-needed basis. This area shall become operational within 1yr of the date of the OU3-13 ROD	A) This requirement has been reworded. See revised T&FR document (origin of Table 1). B) The CERCLA Storage Area adjacent to CPP-92 already exists and is operational. Therefore the storage requirement for operation within 1 year of the ROD signing is not necessary. DOE is in the process of formalizing CSA operation by developing a WAC and tracking system Are working out procedures

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Comments on the Draft 10% RD S.S.S.T.F.

#	Pg.	Issue	SUGGESTION/DISCUSSION	RESOLUTION
8.	4	Tbl 1, 011	In light of the planned use of the ICDF Complex to stage wastes from other OU's for future disposal in the ICDF landfill, the 780 cy staging capacity needs to be increased..	Requirement 11 deleted and incorporated into requirement 10. See revised T&FR document (origin of Table 1). The interim staging at the CSA (next to CPP-92) will be discussed in the 10 % design document only. See revised T&FR document.
9.	4	Tbl 1, 012	See comment on Table 1, items #010 and #011 above.	Due to the conceptual nature of this design, these numbers were used as a preliminary defining parameter. These numbers will change as the design becomes better defined. The requirement has been changed to read TBD. See revised T&FR document (origin of Table 1). EDF #6 Waste Staging and Storage will study and determine the appropriate size and storage types.
10.	4	Tbl 1, 013/014	These requirements are not directly derived from Section 1.3.3 of the OU 3-13 SOW.	The SSSTF is a waste management complex containing a number of treatment, storage, disposal and staging elements that may not all be co-located. The ROD provides for temporary units as required to manage wastes.
11.	4	Tbl 1, 015	Designing the SSSTF to stabilize 130cy per day	The ROD requirement will be referenced. See revised T&FR document (origin of Table 1).
				Due to the conceptual nature of this design, these numbers were

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Comments on the Draft 10% RD S.S.S.T.F.

#	Pg.	Sect.	ISSUE	SUGGESTION/DISCUSSION	RESOLUTION
12.	4	Tbl 1, 016	should not be a requirement.	chemical transformation. If we look at an ICDP landfill operation of 100,000cy of waste per five year period with a 116 month and 119 month operational window, we would only need a landfill operational efficiency of 5,000cy per month. Assuming 20% of the waste required stabilization, the daily rate for the SSSTF would be <<60cy per day for a 4 day work week.	used as a preliminary defining parameter. These numbers will change as the design becomes better defined. The requirement has been changed to read TBD. See revised T&FR document (origin of Table 1). EDF #8 Operating Scenario will study and determine the appropriate through put for loads per day.
13.	5	Tbl 1, 018 thru 024	The basis for assuming an operational staff of 10 personnel for SSSTF needs to be justified.	What are the minimum requirements that will be met by the INTEC services should be stated.	Due to the conceptual nature of this design, these numbers were used as a preliminary defining parameter. These numbers will change as the design becomes better defined. The requirement has been changed to read TBD. See revised T&FR document (origin of Table 1). EDF #8 Operating Scenario will study and determine the manpower.
14.	5	Tbl 1, 025	These are not stated as requirement. See Comments on Appendix B Table 3.1.4-1	Accept Comment. These will be restated as requirements. See revised T&FR document (origin of Table 1). The table will be revised with only ARARS from 12.3 from ROD. Requirement 026 will be revised to address "other" regulations. See revised T&FR	Accept Comment. These will be restated as requirements. See revised T&FR document (origin of Table 1). The table will be revised with only ARARS from 12.3 from ROD. Requirement 026 will be revised to address "other" regulations. See revised T&FR

Comments on the Draft 10% RD S.S.S.T.F.

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15.	5	Tbl 1, 029	What is the basis for establishing a 100mR/hr limitation on waste acceptance?		document (origin of Table 1). This requirement has been reworded. See revised T&FR document (origin of Table 1). EDF #13 will determine limits for non-contact handed waste for management and treatment.
16.	6	Tbl 1, 031	Is this requirement to be viewed as a limitation that only wooden boxed wastes would be received?		No. This requirement was intended to make sure that the 4x4x8 boxes would be handled. The requirement has been restated to include other debris. See revised T&FR document (origin of Table 1).
17.	6	Tbl 1, 032	What is the basis for the 60% "availability of operation" criteria?	As the SSSTF consists of a number of operations, the 'availability' criteria should apply per operation. Also, availability needs to be distinguished from reliability and efficiency.	This requirement has been deleted. See revised T&FR document (origin of Table 1).
18.	7	Tbl 2	The total yardage for SSSTF inventory is inconsistent with the estimated yardage listed in the OU 3-13 ROD.	Need to reconcile this discrepancy.	The table has been deleted. The revised text will reference the CERCLA Waste Inventory Database for 30% design.
19.	8	2.3	The wording of this paragraph is confusing.	The SSSTF will be designed and operated in accordance with those ARARs listed in the OU 3-13 ROD and with appropriate best management practices. .	Accept Comment.
20.	9	Tbl 3	This entire table needs	The ARARs for a tank storage	ARARs will be identified for each

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Comments on the Draft 10% RD S.S.S.T.F.

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	# Pg. Sect.	ISSUE	SUGGESTION/DISCUSSION	RESOLUTION
		<p>to be revised to identify which of the ARARs (and TBCs) listed in Table 12-3 of the OU 3-13 ROD apply to what specific process activity.</p>	<p>unit design are different then for a staging pile or evaporator. Without specificity, it is not possible to understand what the requirements are.</p>	<p>block on the block flow diagram. See revised T&FR document (origin of Table 3).</p>
21.	10 Tbl 4, F	<p>If the ICDF Complex (i.e., ICDF Landfill, Evaporation Pond(s), SSSTF & Temporary Units) has active waste management (including storage), it is operational year round. If this refers to when certain ICDF Complex operations are available, that should be stated here.</p>		<p>Accept Comment. Assumption had been restated that the ICDF would operate year round. See revised T&FR document (origin of Table 4).</p>
22.	10 Tbl 4, G	<p>There may be exemptions to this assumption, e.g., TRU wastes)</p>		<p>The assumption has been modified. See revised T&FR document (origin of Table 4).</p>
23.	10 Tbl, H	<p>The SSSTF is a complex operation. Availability has to be defined in terms of a specific operation.</p>		<p>The assumption has been modified. See revised T&FR document (origin of Table 4). Note: The requirements driven by this assumption have been deleted. I suggest Assumption H be deleted also.</p>

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Comments on the Draft 10% RD S.S.S.T.F.

#	Pg.	Sect.	ISSUE	SUGGESTION/DISCUSSION	RESOLUTION
24.	10	Tbl 4, J	It is premature to limit analytical capabilities at this stage of design.		The assumption has been modified. See revised T&FR document (origin of Table 4).
25.	11	Tbl 4, P	The operation of temporary units is a component of the ICDF Complex. Currently there is only the ICDF landfill, Evaporation Pond(s) and SSSTF. As this is a CERCLA action, what is meant by waste generator?		The assumption has been modified. See revised T&FR document (origin of Table 4).
26.	11	Tbl 4, Q	The words "significantly" and "organics" needs to be defined for this assumption to have any meaning.	Substitute "Hazardous constituents" for organics and provide an upper bound, e.g., 1%, for significantly.	The EDF #2 Organic Treatability study will define these terms in the 30% design. Organic limit should relate to available technology known efficiency from literature. Will currently consider maximum of 1%.
27.	12	3	The discussion on Incineration is inappropriate for this document and outside the scope of the OU 3-13 ROD which specified physical/chemical treatment, not thermal treatment technologies.		Text will be deleted.

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Comments on the Draft 10% RD S.S.T.F.

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28.	14	3	At a minimum, an evaluation matrix similar to that used for the initial screening of alternatives for a FS should be used here to support the technologies selected for further consideration.	For example, chemical dehalogenation (e.g., KPEG/APEG) may be more appropriate for the expected organically-contaminated waste streams.	EDF #2 will address the organic technologies, and EDF #3 will address the stabilization. A matrix will be supplied and an evaluation logic to identify attributes and weights.
29	16	4.1, 1 st Para.	What is the basis for the 60% "availability of operation" criteria?		The requirement this is based on has been deleted. Text will be revised.
30.	16	4.12 nd Para	More than three categories of waste will be processed through the SSSTF. Wastes destined for off-site management would also process through the SSSTF.		Comment Accepted. The SSSTF will be designed to treat the agreed upon inventory. More than three wastes will be detailed in the 30% design after the inventory has been agreed to.
31.	16	4.13 rd Para	Wastes destined for the ICDF Landfill, not requiring treatment would still require QA sampling and analysis at the SSSTF.		EDF # 5 Waste Disposal Verification will detail the QA requirements for the waste entering the landfill. It is agreed that these wastes will require QA.
32.	16	4.14 th Para	Designing the SSSTF to receive 80 trucks per 6 hr period should not be a requirement		The requirement this is based on has been changed to read TBD. EDF # 8 Operational Scenario will study and determine the

Comments on the Draft 10% RD S.S.S.T.F.

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					appropriate through put for loads per day.
33.	16	4.15 th Para	Wastes requiring sizing would also need to be staged.	It may be worthwhile to define "Treatment" and distinguish it from typical regulatory meanings.	Defined treatment per RCRA may not be same as CERCLA. Will define in 30% to give a definition of treatment that is not necessarily regulatory driven but is specific to SSSTF. (Identify the treatment processes) (e.g. pneumatic could be treatment and this is not normally defined as treatment)
34.	17	4.1 Top Para	Only aqueous wastes will go to the evaporation pond, depending upon the influent waste acceptance procedures. Sludges would be separated and stabilized.		The Waste Acceptance Criteria for the Evaporation Pond (EDF #10) will address what will be accepted. It is assumed at this stage that solids will be separated.
35.	17	4.12 nd Para	A) Minimum tank capacity needs to be supported. B) Only aqueous wastes will go to the evaporation pond, depending upon the influent waste acceptance procedures.		A) The Minimum tanks capacity has been changed to TBD. This will be specked in EDF #6, Waste Staging and Storage. B) The Waste Acceptance Criteria for the Evaporation Pond (EDF #10) will address what will be accepted. It is assumed that solids will be separated.
36.	17	4.24 th Para	It is possible that the only sizing may be required on select waste		Comment Accepted. More detailed process flows will be developed for the 30 % Design.

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37.	18	4.2Last Para	streams. Stabilization of liquids for placement in the ICDF will require a minimum unconfined compressive strength of 50psi (see OSWER Directive 9487.00-2A). How will this demonstration be made on uncured grout?		EDF #5 Waste Disposal Verification will define QA requirements for disposal. Waste will not be released until it meets QA requirement to assure the treatment was effective. Document will be revised for 30%.
38.	19	5.1.3	A) A requirement under CERCLA and a basis for our OU 3-13 ROD decision is that the short-term risk to workers, community and environment are acceptable. The short-term risk includes the construction, operation and closure of the SSSTF. This needs to be fully addressed in the RD/RAWP.		The RD work plan will address this issue. Will address in Title 1 package and complete in title 2.
39.	21	5.2.1	The fact that the SSSTF will be located outside the 100 year flood plain should be specified.		This has been added as a requirement. See revised T&FR document. Text will be revised.
40.	24	5.4.2	Parts of the SSSTF will have a design life far in excess of 10 years.		Requirement has been changed to reflect a 30-year life - Standard DOE facility design life.

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41.	29	5.7.4	The question of cathodic protection for Tank systems needs to follow the requirements specified at 40 CFR 264.192(a)(3)		Text will be revised. Comment Accepted. This will be reflected in the 30 % Design.
42.	33	8	A) No annual O&M costs are listed and should be. B) The basis for assuming 20% Contingency is not supported for a relatively simple project.		The budget estimate will be re-evaluated and O&M costs will be included in 10% document.
43.	App A	Gantt Chart	This schedule should also reflect necessary review processes (both IRC & Agencies) for both the Title I and EDF's.		The schedule will be revised to show the submittal of documents and review as necessary. EDF's are neither primary nor secondary documents. If these are submitted to the Agencies for review, the comment period would be two weeks.
44.	App B	General	Please see earlier comments		See revised T&FR document.
45.	App C	General	Please see earlier comments		Appendix C will be deleted. See revised T&FR document (origin of table in Appendix C)
46.	App D	General	Please see earlier comments		Appendix D will be deleted. See revised T&FR document which addresses comments against

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		Appendix D.			
47.	App D	Design...	<p>A) It is premature to assume that decontamination activities will not be required between waste streams.</p> <p>B) The sizing of wastes at the SSSTF should not be limited to the throat of the auger system.</p> <p>C) Treatment of wastes at the SSSTF is not completely dependent upon the ICDF Landfill coming on line. Pretreatment of wastes for off-site shipments may also be necessary.</p>	<p>A) It is not the intent to decon between truck loads unless A) AR concerns require decontamination or maintenance is required..</p> <p>B) Sizing will be designed to meet ICDF requirements. Additional reduction may be needed for the auger system.</p> <p>Accept Comment. The requirement has been modified.</p>	Appendix D.
48.	App D	Solid ...	<p>A) Wastes will be subjected to a minimum QA characterization upon arrival at SSSTF regardless of source area characterization</p> <p>B) The SSSTF will also receive removal wastes in addition to remediation</p> <p>C) The sizing of wastes at</p>	<p>A) EDF # 5 Waste Disposal Verification will address the QA for waste arriving at the SSSTF.</p> <p>The text will be revised to be consistent with the IC Plan Soil Strategy.</p>	

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49.	App D	Special...	<p>the SSSTF should not be limited to the throat of the auger system</p> <p>A) Will storm water be drained or pumped to a holding tank? Also the design should assume 40 CFR 264, Subpart J ARARs apply</p> <p>B) The ICDF Complex has provisions in the ROD for managing wastes from other WAGs. Provisions to temporarily store retrieved wastes in containers in preparation for shipment to the SSSTF may be unavailable or not cost effective or both.</p>		<p>C) Sizing will be designed to meet ICDF requirements. Additional reduction may be needed for the auger system.</p> <p>A) EDF #12 will examine water collection requirements as they pertain to ARAR restrictions.</p> <p>B) Interim Storage already exists at the pad adjacent to CPP-92. DOE is in the process of developing a WAC and tracking process for these storage areas. As additional areas become necessary they will be developed.</p>
50.	App D	Roll-off...	<p>How will wastes (primarily soils) be retrieved from roll-off containers?</p>	<p>It may be advisable to employ a vacuum retrieval system to convey wastes between transport vehicles. Such a system would also serve to reduce VOC concentrations in incoming</p>	<p>EDF # 8 Operating Scenario will investigate the removal of the waste from roll offs.</p>

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				waste loads.	
51.	App E	Sht A-1.		Consider relocating the mechanical and electrical rooms to suit the site utility routing shown on Sheet U-1.	Comment accepted. Will be reviewed in 30 % design utility finalization.
52.	App E	Sht A-2.	Will provisions will be made on the main process floor area to direct spills to a sump area?		Yes. All spills and wash down water will be collected in the sumps.
53.	App E	Sht A-2.		Consider relocating the mechanical and electrical rooms to suit the site utility routing shown on Sheet U-1.	Comment accepted. Will be reviewed in 30 % design utility finalization.
54.	App E	Sht A-2.		This building is shown as expandable in the north direction on Sheet U-1. Consider locating overhead doors on the side walls of the metal building instead of the end walls to facilitate future expansion.	Comment Noted. This will be reviewed during the 30% design.
55.	App E	Sht A-6.		Many stressed skin structures have a relatively steep roof pitch. To assure that proper functional clearance is provided, consider specifying the minimum required interior vertical clearance at the conveyor location, as opposed to the dimension to the building's high point.	Comment Noted. This will be reviewed during the 30% design.

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56.	App G.	Item 9103.01, Misc yard concrete.	A) For belt conveyor footings, 16 CY appears low (note extent of conveyors, supports, and pits shown on Sheet A-6)B) For silo foundations, 16 CY appears low. C) No line item was found for storm water storage tank foundations.		Belt conveyers will not be used. Other transport mechanisms will be evaluated in the 30% design.
57.	App G.	Item 9103.02, Struct.	A) No line items found for Administrative Building and storage Building foundations. Are these included as part of the unit costs under 9113.01 Buildings? B) No line item found for batch plant foundation.		The cost estimate will be revised.
58.	App G.	Item 9113.01 Build.	A) Are foundation costs for the Administration Building and Storage Building included in the tabulated unit price?		The cost estimate will be revised.
59.	App F	Working Sched.	The Working schedule needs to include provisions for bringing certain areas on line ASAP to accommodate		The schedule will be revised to show the submittal of documents and review as necessary. EDFs are neither primary nor secondary documents. IF these

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			fast track retrievals at other WAGs.		are submitted to the Agencies for review, the comment period would be two weeks.
60.	App G	Summary	What is the basis for an 8.9% escalation?		The escalation rate came from the INEEL Estimating Guide.
61.	App G	Detail... General	A walk through discussion of the Construction estimate is necessary to better understand the costs. For example, it is unclear why both a Construction Manager and Engineer are identified as full time on the project?		Comment Noted. A discussion section will be added to the 30% design text.

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1.		<p>GENERAL: Many of the concerns presented herein pertain to text that is repeated in multiple sections of this document (for example, the same assumptions are presented in various formats throughout Sections 2 and 4 and Appendix D). Please note that we have not repeated our comments for each reference of an item of concern throughout the conceptual design submittal package. However, our comments apply to all similar references of the issue throughout the document.</p>
2.	1 1.1 paragraph 6 last sentence	<p>Comment Noted. Resolution to Specific comments will resolve this comment.</p>
3	3-6 2.1 table 1	<p>Not all waste that does not meet the ICDF WAC will be sent off-site. Treatment at the SSSTF will be used to meet the ICDF WAC. If SSSTF treatment will not meet the ICDF WAC, then packaging or pretreatment in SSSTF will be preformed for off-site disposal.</p> <p>Requirement has been changed to reflect a 30-year life – Standard DOE facility design life. See revised T&FR document (origin of Table 1).</p>
		<p>a) Item 005: Ten (10) years has been loosely used to estimate the life of a single cell. The SSSTF will be used to support all the landfill cells, and therefore should be expected to have a much longer operational life. Please modify the table.</p> <p>b) Item 006: The estimate of receiving up to 80</p>
		<p>The number has been changed to</p>

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			<p>trucks in a 6 hour period seems unrealistic, and requires clarification/justification. The WAC will drive this requirement. There are numerous steps (actions) that are yet unidentified in a future WAC that will make this "requirement" extremely optimistic. In addition, assuming that treatment is not needed for a particular incoming waste, we question whether the landfill cell operations would be able to accept/process this volume of waste material (assuming time needed for placement of the material in 12" lifts, compaction to 6", sampling the lift for compliance with compaction requirements and releasing the lift for the next lift to be placed on top).</p>	<p>TBD. See revised T&FR document (origin of Table 1). EDF #8 Operational Scenario will study and determine the appropriate through put for loads per day.</p>
			<p>c) Items 007 and 008: We suggest that "accurately" be defined in terms of +/- percent.</p>	<p>Requirement 007 has been changed to indicate +/- 100 lbs. Requirement 008 has been deleted. See revised T&FR document (origin of Table 1).</p>
			<p>d) Item 011: Comparison of this line item with item 015 suggests that the staging area is anticipated to store only 6 days of waste requiring processing. This may not be adequate storage capacity, especially since some wastes will be received prior to opening of the ICDF.</p>	<p>Requirement 11 deleted and incorporated into requirement 10. See revised T&FR document (origin of Table 1). The interim staging at the CSA (next to CPP-92) will be discussed in the 10 % design document only. See revised T&FR document.</p>
			<p>e) Item 016: A 10 person staff seems excessive. Please provide supporting information justifying the need for this many persons associated with the SSSTF/ICDF.</p>	<p>Due to the conceptual nature of this design, these numbers were used as a preliminary defining parameter. These numbers will change as the design becomes better defined. The requirement has been changed to read TBD. See</p>

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			revised T&FR document (origin of Table 1). EDF #8 Operating Scenario will study and determine the manpower.
		<p>g) Item 029: The proposed 100mR/hr requirement seems low, and must be fully evaluated in light of reasonably-anticipated waste streams. For example, the 1994 OU 1-05 Track-2 Summary Report documents readings of 250 mR/hr in the breathing zone of the TSF-09 V-2 culvert. In addition, measurements as high as 2,500 mR/hr were documented during the 1994 entry into TAN Building 616. The OU 1-10 remedial action for TSF-09/18 expects to dispose of, in the ICDF, contaminated soils that may result from releases from the tank system that includes both the V-2 tank/culvert and the piping connecting the V-tanks with the TAN 616 Evaporator building . Furthermore, given the US DOE's desire to accept some D&D wastes, this "project derived requirement" seems too low to address INEEL needs.</p>	This requirement has been reworded. See revised T&FR document (origin of Table 1). EDF #13 will determine limits for non-contact handed waste for management and treatment.
		<p>h) Item 031: It is unclear if the text is proposing that these are the only types of containers that the SSSTF will accept. We believe this requirement is unnecessarily restrictive, and suggest more global wording.</p>	This requirement was intended to make sure that the 4x4x8 boxes would be handled. The requirement has been restated to include other debris. See revised T&FR document (origin of Table 1).
		<p>i) Item 032: This proposes "Project Design Requirement" requires further explanation, as it is unclear what is meant by "availability of operation" of at least 60 %," and why this value was chosen.</p>	This requirement has been deleted. See revised T&FR document (origin of Table 1).
4	9	2.3 table 3	Accept Comment. The table will be revised to list IDAPA references. See revised T&FR document (origin

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			of Table 3).
		<p>b) The ARAR listed for hazardous waste accumulation times is mislabeled and should be corrected in the final document. It lists 40 CFR (a) (1) 2642.34. The ARAR citing should read IDAPA 16.01.05.006 (40 CFR 262.34 (a) 1).</p>	<p>Accept Comment. The table will be revised. See revised T&FR document (origin of Table 3).</p>
		<p>c) Please add the following ARAR: IDAPA 16.01.05.006 (40 CFR 264.221) -- Surface Impoundment design and operating requirements.</p>	<p>The surface impoundment is not part of the SSSTF. Therefore this ARAR does not apply to this document. The 10% Design document for the ICDF will include the 10 % Design for the surface impoundment and ARAKs will be included there. The evaporation pond will meet the standards.</p>
		<p>d) IDAPA 16.01.05.008 (40 CFR 264.192) is listed in Table 3 with a comment under the Applicable Unit - "Stabilization and Stabilization Tanks, any other tanks". The sump used in the SSSTF (draining the decontamination pad and storage areas) will be considered a tank and will need to meet all regulatory requirements under 40 CFR 264.192.</p>	<p>Comment accepted. The sump design will be considered a tank meeting 40CFR 192 requirements.</p>
		<p>e) IDAPA 16.01.05.008 (40 CFR 264.1082 through 1088) Air emission standards for tanks, surface impoundments and containers is listed as a applicable ARAR on Table 3. Under the "Applicable Unit" column the evaporation pond should be added to clarify the applicability to the evaporation pond and to be consistent with Table 12-3 in the OU 3-13 ROD.</p>	<p>Will be added to table as an operational requirement. See revised T&FR document (origin of Table 3).</p>
		<p>f) The appropriate 40 CFR 761 (PCB) requirements should be added to this table.</p>	<p>Comment Accepted. 40 CFR 761 ARARs applicable to the SSSTF will</p>

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			be added. See revised T&FR document (origin of Table 3).
5	10	2.4 table 4 a) Item C: At this point in the design, it is premature to accept this assumption. It may be advantageous to remove solids from these waste streams prior to discharge to the evaporation pond. Short term risk issues such as fugitive emissions from a dried pond surface, may affect the decision as to whether pre-treatment is required prior to discharge into the pond. In addition, any CERCLA wastes discharged to the evaporation pond must be compatible with pond liner materials.	This assumption has been deleted. See revised T&FR document (origin of Table 4).
		b) Item G: Given that the waste inventory has not been reviewed and finalized, the WAC has not yet been developed, and that the SSSTF will be used to package/process wastes which are disposed off-site, it is premature for us to accept this assumption.	The assumption has been modified. See revised T&FR document (origin of Table 4).
		c) Item J: Although we agree that a complex laboratory is not appropriate for the SSSTF, given that the waste inventory has not been reviewed and finalized, the WAC has not yet been developed, and that the SSSTF will be used to package/process wastes which are disposed off-site, it is premature for us to accept this assumption.	The assumption has been modified. See revised T&FR document (origin of Table 4).
		d) Item M: This assumption is inconsistent with discussions held among the agencies on March 29, 2000 (see Meeting Minutes, page 6 of 17). All incoming wastes will be subject to QA sampling at the SSSTF.	The assumption has been modified. See revised T&FR document (origin of Table 4). EDF#5 will define QA requirements.
		e) Item N: Without further information regarding a specific waste stream, we cannot agree to the statement that reads, "or it will be disposed of directly in the ICDF"	This assumption deals with large pieces of contaminated debris such as large blocks of concrete and

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			without treatment."	tanks. The waste would meet the ICDF WAC constituent treatment that may not meet the size requirements for the physical WAC.
			f) Item 9: Please define "significantly contaminated."	The EDF #2 Organic Treatability study will define these terms in the 30% design. Organic limit should relate to available technology known efficiency from literature. Will currently consider maximum of 1%.
6	13	3 table 5	We believe this table, "Anticipated hazardous waste constituents from WAG-3 CERCLA wastes" may be mis-labeled. The first paragraph on page 12 indicates this table summarizes only organic potential contaminants, which is consistent with the information presented in the table. No metals contaminants are listed, although process knowledge would suggest that several metals could be present at the INTEC as either listed or characteristic wastes. Please check the data and re-label or add to the table as necessary.	This table will be revised to agree with appendix C of FS supplement for all WAGS not just WAG 3.
7	14	3 second paragraph, second sentence	Please explain this sentence. Chemical oxidation is generally considered non-selective, although certain oxidants are more effective over specific pH ranges. In addition, please identify which incomplete oxidation products are of concern.	EDF #2 Organic Treatment Process will address these issues. Will correct the language in the document.
8.	15	3 second paragraph	a) Please clarify whether the 10,000 gallon storage capacity refers to the two 5,000 gallon tanks within the SSSTF storage building. b) The proposal to use well purge water,	This volume will be revisited and discussed along with the interim storage requirements. Water will be required in the

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		<p>decontamination water, and leachate in the stabilization process needs to be carefully evaluated. Some of these waste streams will carry listed waste codes. Use of these contaminated wastes in this manner would not meet the definition of re-use, since the stabilization process is not an industrial process to make a product, nor is it an effective substitute for a commercial product [See IDAPA 16.01.05005(40 CFR261.1 (c)(5))]</p>	<p>stabilization process. The wastewater is being considered as part of the make up water to be used during the stabilization process.</p>
9.	15	<p>Last paragraph</p> <p>We do not support the proposal to emplace the grout, uncured, within the ICDF cells. We believe this proposal is inconsistent with 40 CFR 264.314 (b). To demonstrate compliance with this regulation, you must first use the Paint Filter Liquids Test to determine whether a waste is a liquid or contains free liquids. If there is any doubt, USEPA guidance document "Prohibition on the Disposal of Bulk Liquid Hazardous Waste in Landfills--Statutory Interpretive Guidance (OSWER Directive 9487.00-2A) recommends the use of an unconfined compressive strength test as an indirect method for determining the extent to which the waste has been chemically transformed into a solid state. A minimum compressive strength limit of 50 psi is recommended to ensure that the treated waste has at least as much strength as the surrounding soils. It is unlikely that the uncured grout would pass these tests. Furthermore, in-cell grouting is not practical in that it is much more difficult to control mixing, it will take significant time to get the results of performance/cure tests associated with the stabilized waste form during which time the cell may receive no more wastes, and if the stabilized waste form failed the performance/cure tests,</p>	<p>EDF #5 Waste Disposal Verification will address this issue.</p>

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10	16	4.1 second paragraph	<p>these partially stabilized wastes would require excavation and transport back to the SSSTF for re-sizing and further stabilization (doing so would be costly and interfere with ICDF and SSSTF normal process flow operations).</p> <p>This paragraph is too narrowly restricting the type of wastes that could be processed through the SSSTF. First, the text should mention wastes that do not meet the ICDF WAC and will be shipped off-site to others. In addition, secondary wastes such as decontamination waters and leachate should be discussed. The phrase "waste requiring treatment" is extremely broad and could be subdivided into groups such as wastes that require treatment (by others); wastes that do not meet ICDF WAC, but can be treated on-site to meet the ICDF WAC; wastes that do not meet the ICDF WAC, will be sent off-site to others, and will be ONLY packaged by the SSSTF for shipment, etc.</p>	<p>The paragraph will be rewritten to discuss the flow of waste more accurately.</p>
11	16	4.1 third paragraph, second sentence	<p>Numerous issues arise when a non-dedicated (landfill) truck is allowed to enter the confines (perimeter) of the landfill cell. Decontamination issues for the non-dedicated truck could encompass the driver, the rolloff container (if so equipped), the truck chassis, and the tires. These types of decontamination requirements have the potential to be very costly, time-consuming, and could slow the entire waste delivery process down to a crawl. Alternately, we suggest that a rolloff box transfer in an area outside of the cell (in discrete, marked, hot/cold areas) would make the disposal process simpler.</p>	<p>Comment Noted. EDF #8 Operational Scenario will address these issues.</p>
12	16	4.1 third paragraph,	<p>Please define verified</p>	<p>Verified – Establishment of the agreement between the waste</p>

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		last sentence	profile and the truck contents.
13	16	4.1 fourth paragraph, second and third sentences	<p>It is unclear why storage should be limited to a three-day supply of wastes, or to wastes that requires treatment. For example, these two sentences do not consider a need to store wastes that require packaging for off-INEEL disposal, storage for wastes (direct disposal or treated) when the ICDF is constrained by cell operations (lift compaction tests, etc.), the wastes have been treated and are awaiting verification analyses (LDR or performance - driven).</p> <p>The requirement this is based on has been changed to read TBD. EDF #6 Waste Staging and Storage will study and determine the appropriate size and storage types.</p>
14	16	4.1 last paragraph, first two sentences	<p>Suggest the text be modified as follows: "After segregation, the waste requiring treatment will undergo sizing and treatment processes, as necessary and upon demonstration of successful treatment, the waste will be ready for shipment to the ICDF."</p> <p>EDF # 5 will define the waste QA procedures. These will be further detailed in the 30% Design.</p>
15	17	4.1 first paragraph	<p>a) If the trucks were in the ICDF cell, it is likely that those trucks will require decontamination. Subsequent design submittals should detail the type of radiological surveying of conveyances to know whether decontamination is appropriate, needed, or what release status the equipment holds. It is suggested that conservatism be built into the ICDF entry/egress and decontamination minimized as much as possible (see comment # 11).</p> <p>Comment Noted. EDF #8 Operating Scenario will address this issue.</p>
			Text will be revised to address the issue of treatment of solids prior to disposal.
16	17	4.1 second paragraph,	<p>b) Last sentence: Any solids/sludges in the sump will not be transferred to the ICDF evaporation pond for disposal. These wastes would, depending on its contamination levels, undergo stabilization for final disposal in the ICDF.</p> <p>Please provide the size of the sump being contemplated. As stated in comment # 4 (d), the sump will be</p> <p>Comment accepted will use correct citation. Not all sumps are tanks.</p>

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17	17	4.2 last paragraph	<p>considered a tank and must meet the requirements of IDAPA 16.01.05.008 (40 CFR 264.221). This sump will be a major "receipt" structure for a number of contributing streams. Therefore, we suggest that the "sump" be contained in a vault and most importantly, all of the contributing wastewater (underground) lines be double-lined and be available for inspection/testing.</p> <p>We request clarification regarding a couple items in this paragraph:</p> <p>a) The text states that waste will first undergo segregation and sizing operations prior to disposal. Please clarify whether this is the expectation for all wastes, or whether there is any direct receipt that does not undergo segregation/sizing.</p> <p>b) In addition, please describe the types of storage bins being contemplated (last sentence). From a practical perspective, we suggest that these bins not have rag top covers since these do not hold up well if stored outside in the event that the processing building capacity gets exceeded.</p> <p>c) This section describes a variety of equipment such as a dual processor for shredding and pulverizing wastes and mixing equipment for treating wastes with grout and/or other chemicals. These pieces of equipment used in treatment are subject to IDAPA 16.01.05.008 (40 CFR 264.601) -- miscellaneous units environmental performance standards. As such, the design document should identify the appropriate requirements of IDAPA 16.01.05.008 (40 CFR 264 Subparts I through O) for each specific miscellaneous unit.</p>	<p>Until reach 30% design, will not know whether sump is a tank. Once design is at 30% the regulation will be evaluated versus design to determine the applicability of the regulation.</p>
18	18	4.2 last	<p>Use of the same equipment/station for stabilization.</p>	<p>The specifics will be discussed in the 30 % design.</p> <p>Determining the exact type of storage bin is premature at a 10 % design. EDF # 6 - Waste Staging and Storing will select the type of bins appropriate.</p> <p>Only those ARARs specified in the OU 3-13 ROD are applicable. These will be looked at in 30% design and will identify the appropriate substantive requirements.</p> <p>This issue will be evaluated in 30%</p>

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		paragraph	neutralization, and chemical treatment is an admirable suggestion. However, it this can cause severe problems when campaigns/equipment down-times are experienced. We suggest that the Agencies discuss the pros/cons of the multi-use approach.	design.
19	21	5.2.1 first sentence	It would be helpful to include a figure showing the proposed SSSTF location, or to refer to Drawing T-1 in Appendix E.	The reference will be incorporated.
20	21	5.2.1	The intent of this paragraph is unclear. On the basis of the OU 3-13 Record of Decision, the ICDF/SSSTF will be located outside the 100 year flood plain.	Comment Accepted. The requirement has been modified to reflect this.
21	21	5.2.1 last paragraph, last sentence	The referenced text proposes use of vegetative cover within the SSSTF. It is our understanding that watering vegetation at INTEC has been banned, in accordance with the Group 4 remedy of the OU 3-13 ROD. Therefore, we suggest that alternate covers for disturbed areas be investigated. This comment also applies to Section 5.2.5.	Will be reseeded with native grasses if the area is not paved and if area has been disturbed. (remove landscaping references) All aspects to include utility corridors will be in procedures for RDRA.
22	21	5.2.2	Surface water infiltration at the SSSTF should be minimized. In addition, "Hot" Road Drainage patterns should also be carefully evaluated and addressed separately from the other types of incidental support roadways.	This issue will be addressed in EDF #12.
23	23	5.3.3.2, 5.3.3.3, and 5.3.3.4	Although early in the design process, it is not clear how ALARA and decontamination control is to be accomplished with the administration area. For instance, how will workers from ICDF and the SSSTF processing areas gain entry into the controlled portions of the complex, how will they gain access to the restrooms, lunchroom, break room; where will the	EDF #8 Operation Scenario will identify and discuss the worker ALARA issues. A RAD safety engineer will be part of the design team to ensure protective measures are taken. These will be included in the 30% design.

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			Hand/Foot Monitor be located, where will the "dirty" lockers be located, the clean lockers? These questions need to be addressed early, before designs for the plumbing and potable water supply are finalized.	How will access be managed to prevent contamination in the admin areas? This issue will be discussed in 30% design and will be discussed in the RA work plan.
24	24	5.4.1	Although we recognize that this document is early in the design, we recommend that the interior wall coatings in each process building/structure be equipped with a surface that can be decontaminated easily. This will be critical to ensure the integrity of the material if/when decontamination is deemed necessary.	Comment Noted. This will be taken under advisement and addressed in a later design document
25	24	5.4.3	No mention is made within this section of any type of concrete/ floor coatings to be applied in the waste processing/staging/storage areas. This need should be addressed since chemical resistance is needed and radiological COC contamination is a subject to be considered.	Comment Noted. For those areas with a potential for contamination, this will be added as a Requirement.
26	27	5.5.1.2	The "Utilities" portion of this section stated that none are required in this area. This appears inconsistent the needs for emergency lighting, ext signs, forklift charging, eyewash, freeze-proofing, etc. Please clarify. Also, please discuss if this facility expands to the north (as suggested on Drawing U-1 of Appendix E) whether there will there be any problems with the presently-planned north wall features (e.g., water storage area, electrical room, fire riser room, etc.), including access/egress.	Comment accepted. The text will be revised.
27	27	5.5.1.3	Please clarify whether this section, designated "Liquid Storage," is also referred to as "Water Storage" within the text and drawings. Also, there are no entries for the	Language will be standardized to refer to the storage consistently.

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28	27	5.5.1.3	Under the heading "HVAC", the first sentence appears to be derived from the section above ". for the <i>liquid storage</i> area." Again, there are no power requirements mentioned in the Utilities discussion.	Comment accepted. The text will be revised.
29	28	5.6.2 Fire Protection	We recommend the use of Halon fire extinguishing systems be considered for at least the computer/sensitive instrumentation areas.	Comment noted. Appropriate fire protection will be identified in the 30% design.
30	32	7.1	The text proposes use of fixed-price contracts to procure services/materials for design and construction. Please note that IDEG expects to review design documents in accordance with the RD/RA strategy outlined in the FFA/CO Action Plan and the OU 3-13 RD/RA Scope of Work. Our review will not be limited to developing performance standards for fixed price contracts.	All Design documents will undergo Agency review.
31	A-10	Appendix A, SSSTF Title 1 Design Implementation Plan	This schedule chart should include Agency review periods (secondary document -- 30 day) and comment resolution periods.	The schedule will be revised to show the submittal of documents and review as necessary. EDFs are neither primary nor secondary documents. If these are submitted to the Agencies for review, the comment period would be two weeks.
32	2	Appendix B, Section 1.4	Please give an example of a "Low Volume Anomalous Waste."	Waste that is currently unidentified and is outside the scope of the SSSTF treatment and packaging functions.
33	5-6	Appendix B, Section 1.6	a) This table should also address the dispositioning of decontamination and storage pad runoff water.	This water will go to either the evaporation pond (if it meets the

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				WAC) or be used as make up in the stabilization mix. EDF #12 will address this issue.
			b) Item E: This assumption appears inconsistent with the text which also indicates that wastes can arrive in dump trucks, boxes, drums, tankers, etc.	The assumption has been modified. See revised T&FR document.
34	7	Appendix B, Section 2, last sentence	We suggest that "hazardous or mixed" be inserted after "Furthermore," and "if necessary, or packaged and shipped off-site for treatment and disposal" be inserted after "prior to disposal."	The text has been revised. See revised T&FR document.
35	7	Appendix B, Section 2.1.1, second sentence	Please describe what "semi-protected" space means.	This language will be deleted from the text.
36	9	Appendix B, Section 3.1.1, Rqmt003	Under the Reqmt. Basis, at the end of the sentence add: "and that comply with the ICDF WAC requirements."	Requirement has been deleted. See revised T&FR document).
37	10	Appendix B, Section 3.1.1, Rqmt004	Please include other waste waters in this section.	Requirement has been modified. See revised T&FR document).
38	A-2	Appendix B, attached Sub-Appendix A, WAG 1 Remediation Waste Inventory	The line items for TSF-07, TSF-09/18, and TSF-26 require clarification. Chemical treatment is suggested as the necessary treatment for ICDF disposal (column 6), but no Contaminants of Concern are identified for these sites. Although we realize that the waste inventory is still being developed, the table should at least provide explanation in a footnote for the above-referenced contradiction.	This appendix has been deleted. EDF #1 Waste Inventory Design Basis will address this issue.
39	A-6	Appendix B, attached Sub-	The line items for CPP-97, CPP-98, and CPP-99 require clarification. Neutralization/chemical treatment is	This appendix has been deleted. EDF #1 Waste Inventory Design

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		Appendix A, WAG 3 Remediation Waste Inventory	suggested as the necessary treatment for ICDF disposal (column 6), but no Contaminants of Concern are identified for these sites. Although we realize that the waste inventory is still being developed, the table should at least provide explanation in a footnote for the above-referenced contradiction.	Basis will address this issue.
40	Appendix D, Design Basis and Assumptions, first bullet	We cannot accept this assumption as a blanket statement without information regarding specific waste streams. For example, per IDAPA 16.01.05.008 (40 CFR 264.17 (b)) precautions must be taken to minimize reactions resulting from mixing incompatible wastes. In addition, it may be advantageous to clean out residuals from grossly contaminated waste campaigns.		Appendix D has been deleted from the document. Document will take into account not mixing incompatible waste and decon may be done to deal with ALARA and short term risk issues. It is recognized that if decon is not done, the prior waste codes will be passed on to the waste that is disposed.
41	Appendix D, Block 1, second bullet	This assumption is inconsistent with the recently-developed INTEC soils management strategy presented in the final Institutional Controls Plan. The soils management strategy describes a process whereby contaminated soils originating from non-FFA/CO activities may be considered "SSSTF/ICDF Candidates." In addition, wastes from removal actions may also be managed and processed at the SSSTF.		Comment noted. Appendix D has been deleted from the document.
42	Appendix D, block 2	According to the site plan (drawing U-1) the scales will be located within the SSSTF fence. However, the Block Flow Diagram shows these outside of the SSSTF Battery Limit. Please clarify.		Appendix D has been deleted from the document. The block flow diagram has been revised and included in the T&FR document.
43	Appendix D, block 3, last sentence of paragraph	The text should describe final disposal plans for the storm water.		Appendix D has been deleted from the document. The block flow diagram has been revised and included in the T&FR document.

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	EDF #12 will address this issue.		
44	Appendix D, block 3, Bulleted Assumption It is premature to accept this assumption. Compliant storage areas may not be available at the WAG remediation site, and all WAG remediation schedules may not correspond to availability of the ICDF for disposal. For example, this is currently the case with WAG-1 soils from the TSF-26 (PM-2A) remedial action.	Appendix D, block 3, Bulleted Assumption It is premature to accept this assumption. Compliant storage areas may not be available at the WAG remediation site, and all WAG remediation schedules may not correspond to availability of the ICDF for disposal. For example, this is currently the case with WAG-1 soils from the TSF-26 (PM-2A) remedial action.	Appendix D has been deleted. This issue will be addressed in EDF #1, EDF #4, EDF #6, and EDF #8.
45	Appendix D, block 5 The block flow diagram suggests that all incoming wastes must be processed through this unit. It seems that some wastes may not require shredding and could bypass this block. Please modify the flow diagram.	Appendix D, block 5 The block flow diagram suggests that all incoming wastes must be processed through this unit. It seems that some wastes may not require shredding and could bypass this block. Please modify the flow diagram.	Appendix D has been deleted from the document. The block flow diagram has been revised and included in the T&FR document.
46	Appendix D, block 7, Bulleted Assumptions Given that the waste inventory has not been reviewed and finalized, the WAC has not yet been developed, and that the WASTF will be used to package/process wastes which are disposed off-site, it is premature for us to accept these assumptions.	Appendix D, block 7, Bulleted Assumptions Given that the waste inventory has not been reviewed and finalized, the WAC has not yet been developed, and that the WASTF will be used to package/process wastes which are disposed off-site, it is premature for us to accept these assumptions.	Appendix D has been deleted from the document. The block flow diagram has been revised and included in the T&FR document. This issue will be addressed in EDF #3.
47	Appendix D, block 19 The block flow diagram needs to have a branch for bringing material out of storage.	Appendix D, block 19 The block flow diagram needs to have a branch for bringing material out of storage.	Appendix D has been deleted from the document. The block flow diagram has been revised and included in the T&FR document.
48	Appendix D, block 20 It does not seem appropriate for secondary wastes that are non-hazardous and non-radiological to be disposed of in the ICDF. We recommend that these waste streams be identified and other disposal options explored.	Appendix D, block 20 It does not seem appropriate for secondary wastes that are non-hazardous and non-radiological to be disposed of in the ICDF. We recommend that these waste streams be identified and other disposal options explored.	Appendix D has been deleted from the document. Comment Accepted. Non-rad non-hazardous waste disposal options will be explored and addressed in the 30 % Design.
49	Appendix E, Drawing U-1, Site/Utility Plan We strongly suggest locating the decontamination area farther from the Administration Building. Given that high pressure steam cleaning will be conducted in the decontamination area, over spray could be a significant	Appendix E, Drawing U-1, Site/Utility Plan We strongly suggest locating the decontamination area farther from the Administration Building. Given that high pressure steam cleaning will be conducted in the decontamination area, over spray could be a significant	Comment noted. This will be reviewed in the 30% design.

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			concern that varies with wind direction. Logistically, it makes sense to locate this activity away from generally occupied, clean areas.	
50		Appendix F, Project Schedule	The schedule presented in this appendix should include submittal dates, review periods, and comment resolution periods for the various Engineering Design Files and treatability studies documents proposed in Appendix A.	The schedule will be revised to show the submittal of documents and review as necessary. EDFs are neither primary nor secondary documents. If these are submitted to the Agencies for review, the comment period would be two weeks.

10% DESIGN COMMENT RESOLUTION2 Headquarters Comments

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1	2	2.1 Requirement 005	What is the requirement for 10 years. Won't the SSSTF need to be operational until the last ICDF cell is closed?		Requirement has been changed to reflect a 30-year life - Standard DOE facility design life. See revised T&FR document (origin of Table 1).
2.	17	4.2 third para.	Are the technology needs for treatment of RCRA organic concentrations-		No these are in the PBS needs. This technology should be off the shelf technology.

2 Bolded Comments were identified by the agencies as significant
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			<p>based contaminates mentioned or listed in the IPABs/ER-103 PBS technology needs section? If not the need and type of treatment technology should be added to the data base documents.</p>		
3.	2	Appendix E	<p>Suggest changing the need for personnel in the document narrative to 12 people.</p>		<p>The requirement has been changed to read TBD. EDF #8 Operating Scenario will study and determine the manpower.</p>

Appendix E
Meeting Minutes

Appendix E

Meeting Minutes

SSSTF and ICDF Meeting Minutes
June 12–14, 2000
Idaho Falls, ID

The meeting attendees' list is Attachment A.

Group 2 Building Drainage Evaluation

Drawings of the piping systems were presented for Group 2 Buildings. The purpose of the discussion was to address comments on the Draft Building Drainage Evaluation Plan and to discuss methods of evaluation. Drainage Flow charts, schedule, and deliverables were presented by the INEEL. The attachment included the logic for examination of the piping for leaks, a schedule for Group 2 Soils under buildings and structures drainage evaluation and a listing of the project deliverables.

All piping drawings are on microfilm. All drawings in hard copy seem to originate from the original drawings. It is not clear whether these drawings are as-builts or initial design drawings. The goal of the project is to identify the pipes that may have leaked. The following approach was recommended by EPA:

1. Identify the pipes.
2. Identify the pipes that potentially have leaked and the affect of the leakage.

If the leakage results in a limited amount and leak is easily transported to ground water, then it needs to be immediately dealt with; otherwise it may be placed on a list to observe but does not need immediate attention.

3. In order to determine whether leakage has occurred the following should be considered:
 - examine piping specifications,
 - location of the pipe,
 - the material around pipe or piping bed (e.g., gravel allows any leakage to be more mobile than concrete)
 - evaluate hydraulic load on the pipe
 - estimate volume that leaked
 - perform preliminary qualitative transport assessment to groundwater.

Parking Lot #1—An issue for future discussion is how to provide drawings that are DOE drawings as opposed to INEEL drawings.

Action Item #1—Wayne Pierre of EPA agreed to provide a new logic chart for evaluation of the piping by Friday June 16, 2000 for discussion early the following week.

OU 3-13 SSSTF Conceptual Design Report T&FR Assumptions

The edited version of the assumptions will be included in the final SSSTF Conceptual Design Report.

OU 3-13 SSSTF Conceptual Design Report T&FR Requirements

The OU 3-13 Conceptual Design Report T&FR requirements were edited based on the assumptions and will be included in the final SSSTF Conceptual Design Report.

For inventory estimate, it was agreed, pending agency review, to use CWID at the starting point for the inventory for design purposes. In addition judgement may be needed to size the equipment. For example, it may be cheaper to purchase a certain size of equipment that may be larger than purchasing equipment sized exactly per the inventory.

Requirement 004 deals with interim storage of well purge water before and after SSSTF is built. The "interim period" is before evaporation pond is on line. Periods of time affect the temporary/interim storage needed. The following periods of time were listed for future discussion in a conference call:

1. Today until purchase of tank capacity—accumulation without documentation approved, (have about 15 months time not under CERCLA procedures) may choose to use waste management plan.
2. After purchase temporary tanks until RDRA WP for SSSTF
 - 2A. Time of RDRA approval to construction operation of SSSTF.
3. RDRA SSSTF until the Evaporation pond is operational.
4. After the evaporation pond is operational.

EDF

Through out the discussion of assumptions and requirement for both SSSTF and ICDF, issues were identified that are directly related to design that need added detail in order to complete the 30% designs. These issues are captured below in the EDFs listed. These EDFs will be discussed with the technical staff. After completing the details of the EDFs the draft information will be available for regulator comment. However, it must be stressed that this comment period is optional and not a 'required' comment period. Any comments received will be examined and time permitting will be discussed. Regulators will have a formal comment period on the EDFs as part of the 30% design.

1. Waste Inventory Design Basis

This EDF will evaluate the INEEL CERCLA inventory database and determine, by remediation site, the waste volume, contaminants, and treatment method. This information will be the basis for designing the treatment schemes.

2. Organic Treatment Process Selection.

This EDF will evaluate organic treatment technologies, will provide the decision criteria used to select the preferred alternative, and will provide the engineering analysis needed to complete design.

Organic limits relate to available technology efficiency specification KPEG /APEG

3. Stabilization and Encapsulation Process Selection.

This EDF will evaluate stabilization methods, will provide the decision criteria used to select the preferred method. and will provide the engineering analysis needed to complete design.

4. Waste Transport Study

This EDF will evaluate alternatives for efficiently transporting waste from the remediation site to the SSSTF and will provide the decision criteria for selecting the preferred method or methods.

5. Waste Disposal Verification.

This EDF will identify waste disposal validation and verification requirements for treated and untreated waste and will evaluate implementation methods.

- need to address specific QA requirements for treatment functions pre and post treatment
- 50 psi
- paint filter and other issues in state comments.

6. Waste storage and staging.

This EDF will evaluate the need for indoor waste storage, outdoor waste storage and waste staging to optimize the use of space and equipment.

7. Preliminary Hazard Classification Analysis

This EDF will document the preliminary hazard classification analysis of proposed operations at the SSSTF.

8. ICDF/SSSTF Operational Scenario.

This EDF will describe the operations scenario for movement, treatment, and disposal of waste at the ICDF/SSSTF complex.

9. SSSTF Siting Study.

This EDF will evaluate three possible sites for the SSSTF.

10. Evaporation Pond WAC and Water Pretreatment.

This EDF will determine the ICDF evaporation pond WAC, and the need for pretreatment of water before disposal in the evaporation pond.

11. SSSTF WAC

- sizing
- limitations
- transportation limitations

- generator OPS cost effectiveness
- capacity for manual equipment.

12. Stormwater / Leachate Management

- site specific storm water/leachate management plan
- water staging prior to evaporation pond discharge
- suggest use of State of Idaho “Catalog of Storm Water Pollution Prevention Plan for Construction Activities”—copy was provided with comments on Group 4 MSIP MME.

13. Evaluation of limits for noncontact handled waste for management and treatment.

14. Create a new EDF for statistically profiling soil and waste that will be required from the generator of waste as part of the profile of the waste going to the ICDF. Statistical evaluation would be done by the generator and supplied to the SSSTF in the profile and data. This data will be reviewed and approved by SSSTF before waste/soil is accepted for treatment and/or disposal.

OU 3-13 ICDF/SSSTF Block Flow Diagrams

For each scenario, the INEEL presented a block flow diagram that depicted the flow of material from receipt in the SSSTF to disposal. The figures are being updated by the INEEL based on the discussions from the meeting. For all the figures it was agreed to show major waste stream in one color and secondary waste in another color. The scenarios were presented and followed by comments made during discussions.

Scenario 1—Dump truck scenario of load that passes ICDF WAC

- Need some type of QA function upon receipt and at ICDF
- Waste profile must connect to SSSTF and inspection must be included in acceptance criteria
- Waste needs a staging area until it is verified. Block diagram needs to indicate that 1.1 includes a separate staging area from the weighing area. Drawing needs to note that the shipment is not weighed twice (on way in and out)
- records/approvals
- load to landfill; decontaminate, if necessary weigh out; leave
- ICDF tracking starts at generator of waste profile
- Transport scale includes a staging area (Block 1.1)
- Potential for bottleneck in decontamination area, based on projected number of trucks.
- Concern with truck contamination using radiological material staging area.

EPA indicated that 80 trucks a day seems like a high number. The INEEL indicates that this amount is based on experience. Have roll-on roll-off dropped off and then transport trucks internal to ICDF take the loads. CWID shows more waste than previously discussed. That drives the 80 trucks per day. Final number of trucks is TBD.

Containerizing the wastes allows one to manage waste internal to SSSTF (Hanford 175 trucks per day on two shifts). The question is the level of decontamination needed (e.g., Decontaminate trucks to stay at INEEL or decontaminate to highway standards.) Concern was expressed over trucks being contaminated from entering landfill. Question is whether there is a staging area where material is unloaded, and another truck takes it into the landfill. The INEEL indicated that contamination and decontamination even when trucks enter landfill has not been a problem at other landfills.

Scenario 2—Containerized waste not requiring treatment (roll-off container) (Truck may have multiple containers, but each container has a profile reflective of a specific waste stream.)

- profile is associated with a particular waste stream
- presumed that there is a per-box evaluation
- goes from 1.1 to 2.1.1, from 2.1.1 each box goes to appropriate disposal staging area in 2.3.1.
- internal/external disposal staging/no treatment
- comes out of staging to records/paper work administrative waste tracing via computer
- landfill, decontamination, storage
- need some kind of surveying-out step in this and other scenarios

The following edits were noted:

- Boxes from wood would require treatment (shredding).
- Add a box in 1.0 clarify what transport scale means and that it includes doing the paper work.
- Arrow goes to LF 5.1, goes back to 4.1, alter arrow from 5.1 to 4.1 only.
- Need survey-out step either after disposal cell or decontamination. Decontamination starts with survey. May add survey in ICDF.
- Note that it was agreed not to decontaminate with water in LF.
- Alter 4.2 to go to 3.5.
- From 3.5 can go to 5.3 if meets criteria or to 2.2.3 if needs treatment.

Scenario 3—Containerized waste greater than ICDF WAC

- administrative function required
- treatment staging process needs to be further defined

- requirement in facility design to have a stabilization and treatment crew that can perform QA screen level tests prior to disposal

Add the following edits:

- Make the edits from scenario 2.
- Show where does QA come into play for treatment verification.
- Shredding is example of treatment that could go to disposal w/o staging after shred.
- For any chemical treatment or stabilization, need a post treatment staging per EPA.
- Show a requirement to in the design of facility, to have testing area for stabilization (QA function)?
- The waste treatment function shall have the ability to perform QA testing to verify treatment before disposal. Relates to EDF 05. Need specific QA Requirement for treatment functions.
- EPA—TCLP is not required on all stabilized waste, but must define when or how to assure that waste is stabilized.
- Add buffer storage area to leave material until data comes back from QA.

Scenario 4—Organic waste requiring treatment

- Material will be able to be treated within capabilities of facility
- not all organic material can be treated on site
- Waste assumed to be containerized.

The following edits or comments were discussed:

- Make all edits previously discussed.
- Will need to consider offsite treatment for organics.
- The State indicated per their comment #40, that one may need to decontaminate between vessel usage in treatment or consider the next waste to process through treatment. Cannot assess whether waste is incompatible without knowing the exact waste stream. Decontamination is not 'molecular' compatibility but needs to be considered. Will need to address decontamination in the operation procedures.
- May need to pretreat before shipping waste off site, therefore one must decontaminate previously used equipment to prevent contaminants from previously processed waste to go off site.
- Must consider waste compatibility, pH, reactivity, etc.

Scenario 5—Purge water from INTEC well sampling, RCRA listed. (meets evaporation pond waste acceptance criteria)

- Purge water from well sampling
- There is nothing in the ROD that precludes SSSTF from taking both solid and liquid wastes from well sampling at INTEC.

Action item—In later phone call the group needs to discuss a scenario to address (other WAG) CERCLA purge water from other WAGs.

Comment #8b from the State was discussed in association with this scenario. The comment was whether water from purges can be used for stabilization. If used the water then the codes carry through to waste. Decontamination water could be used for stabilization as it is not listed.

EPA strongly emphasizes that this is not a design issue. This issue is separate from the use of leachate for dust suppression. EPA stressed that use of the leachate will not be allowed for dust suppression.

Action item—Tabled for discussion. Issue is using hazardous waste water used for stabilization water. Need to table for phone call—set up time.

Scenario 6—Oversized equipment

ICDF WAC will be evaluated as compliance waste leaving the SSSTF

The concentration of this waste would meet ICDF waste acceptance criteria but may not meet void space criteria.

One option is to fill with equipment with clean grout but if grout is used, the State and EPA wants grout cured before cover and add fill.

Scenario 7—Containerized TRU constituents (between 10–100 nCi/g)

- containerized soil less than TRU but higher than LLW

It was discussed where ICDF waste acceptance criteria (WAC) needs to be met and where the SSSTF WAC needs to be met. Where is point of acceptance for ICDF and SSSTF? The ramp to ICDF is where WAC for ICDF must meet. As soon as released to go to ICDF then meets WAC. ICDF WAC compliance will be evaluated as waste leaves SSSTF

OU 3-13 SSSTF Conceptual Design Report Comments from Agencies

The comments were all discussed and the resolutions were listed by the number and will be presented in the Final CDR.

OU 3-13 SSSTF Path Forward and Schedule Issues

It was agreed that the path forward and schedule will be discussed in a conference call on June 22, 2000.

OU 3-13 ICDF Conceptual Design Assumptions

Before beginning the final discussions on the ICDF, Denny Myers presented drawings of ERDF landfill operated at Hanford. The drawings were provided to give the attendees an overview of the previously used design for leachate collection. In addition, a Figure-ERDF Sump Volume-Elevation Curve was provided. The figure shows the volume of the sump as compared to the elevation of the base, edge, top of sump gravel, and top of operations layer.

The Technical and Functional Requirements for the INEEL CERCLA Disposal Facility, INEEL/EXT-2000-00810, June 2000 (T&FR for ICDF) was provided for review and discussion.

EPA clearly stated the following discussion on the usage of the leachate. Leachate is listed, and cannot be placed in landfill. It cannot be used for compaction or used for dust control. ROD does not provide for delisting the leachate as was done at Hanford and EPA does not like the delisting approach. One option to allow usage of the leachate is by testing each batch of leachate before usage and evaluating per BDAT. If sampled and less than BDAT could make case to use leachate.

The above discussion then leads to the need to evaluate the size of the evaporation pond. EPA's estimate is 5 acres.

The following discussions relate to the assumptions. This is a consolidation of the discussions held on June 13 and 14 by assumption listed in the T&FR for ICDF. The original T&FR draft was presented in the meeting. Assumption discussion is presented by the letter assigned the assumption in the T&FR.

A. 10nCi/g TRU constituents

Add discussion that the ICDF will not accept waste exceeding 10nCi/g of TRU constituents.

EPA suggested that a statistical approach for soil characterization be added to waste profile criteria for ICDF via MARRSIM for generator of soil samples versus using in-field assay. It may be that added evaluation beyond in-field assay may be needed. A suggestion to potentially use Visual Sample Plan (VSP) software from PNNL was made and the web site reference has been sent to all attendees for VSP. The ICDF WAC will be a subset of the SSSTF WAC. At SSSTF the generator data will undergo QA by SSSTF before placing the waste in ICDF. Samples from waste may also be needed for treatability studies in addition to profile characterization.

Action Item—Add another EDF—work up profile sheet look like for ICDF, use concepts from above on the profile.

B. Sampling will need to be done to assure that the evaporation pond WAC is met. Suggest that assumption discuss sampling philosophy—for hydraulic head measurement use data logger with on-going head pressure; for analytics—develop approach to evaluate lag time from placement versus time into leachate. Use monitors such as continuous conductivity measurement with data loggers. Connect loggers to computers and potentially use batch analyses for hazardous constituents.

Will have control room at treatment facility? Need to pull signals back to station, could be SSSTF or could be separate room. Requirement is to be able to hear/see monitor if failure occurs. Requirement—Expect rapid response to upset conditions, however 'rapid' needs to be defined.

What type of PC or computer system is needed? Where should PC be placed? Allow expansion for data loggers and PC connections.

C. ICDF disposal cell

Requirements for ICDF disposal cell WAC should be developed. Decontamination area highly is likely to be surface impoundment. Where effluent from decontamination pad going? If use tank/impound then need to separate solids, analyze water and go to evaporation pond. Examine adding a settling tank followed by another tank to allow analyses. A requirement is not send decontamination water to evaporation pond until meets WAC for pond.

D. How and when assign x, y, z coordinates when waste moved to ICDF for placement? At other landfills an area used for waste placement is identified and within that area grid squares are documented for the placement of waste for the day, then each load documents within grid where waste goes.

EPA and State emphasized that waste will be tracked by 3-d grid and typical grids that were used at other landfills per their experience are 2 meter grids. While grid size has not been agreed upon at this time, this will be agreed upon in operations reviews. Control lift/compaction/debris placement/meet compaction limits/ to allow ability to retrieve waste. ARARs how interpret. What is grid size? still up for discussion but will not be 1x1ft grid. EPA stated that one may not specify a 95 proctor for compaction. EPA indicated that calculations for subsidence of cap be done and a number for compaction efficiency be derived. Other landfills have taken this approach per EPA. QA for compaction may include bringing cores to lab for compaction.

F. Need flexibility, non shredder waste may be 'special'

What lift size

G. Use leachate sump to operate to prevent backup beyond specifications.

H. Deleted.

J. Assure can apply given mass, weight to maintain database of constituents. Will need to flush out content of profile.

K. Who approves profile? Will it take agency approval? QA of SSSTF will be used in profile approval.

M. Sump size is large enough so power interruptions would not be an issue. Is there anything that requires UPS? (UPS is bigger systems.) (Not include batteries.)

Centralized stand by power will not be required.

N. If INTEC cannot supply power, then build power system. Add information to assumption to get power from SSSTF or INTEC? to the extent practical.

OU 3-13 ICDF Conceptual Design Requirements

The following are edits based on discussions in the meeting for the requirements, basis of the requirement or references listed in the T&FR for ICDF, June 2000. These are listed by the number of the requirement. If the requirement number is not listed no edits were identified.

General comment that applies to all bases and references: "examine the precedence of documents." Assure that the requirements are from the references and where possible make the working of the requirement from the reference. The basis is the agencies position or the basis is from narrative of the reference or the concern is the bases. The bases is interpretation of the reference. The basis may be directly from the ROD in such cases will say see reference. May need basis for items that are not ROD driven or derived from assumptions. If the basis is a regulation that is not listed in the ROD, clearly identify that it is based on "Other regulation"—and indicate that one must see the regulation.

002-

Basis: Provide for onsite disposal of CERCLA wastes that will be generated during CERCLA investigative remedial and removal activities. OU 3-13 ROD defines the management of waste from other WAGS at this location.

003-

Basis: Provide future human and ecological receptors from being exposed to contamination.

add 3a

Requirement: During operations ICDF will have an acceptable short term risk to community, workers and the environment.

Add note—will evaluate potential and actual risk scenarios (10⁻⁴ and HI=1)

004

Requirement: add TRU constituents

Basis: to provide for protection of the SRPA from unacceptable risk—note improve wording.

Reference: ROD including appendix A -comment 226 response in Appendix A;

Note: TBD specific references—RWMC WAC—action item is to define specific references for the RWMC WAC.

005

Requirement: ICDF shall have total design capacity of approximately TBD

Basis: Based on project inventory of INEEL CERCLA waste used to develop the OU 3-13 ROD.

ICDF—clarify for land disposal unit multiple cells

006

Basis: based on the updated projected inventory INEEL CERCLA waste and any agency approved updates.

Reference: CWID inventory estimate to be developed

007

Requirements: Alter TBD01 to EDF 12

Add to basis: waste management active areas (include areas with chemicals or contaminants) ...purge water and other aqueous waste as defined in OU 3-13 ROD p. vii, EDF 12 (other liquid EDF) --

Reference: add information from above requirement to reference.

008

Requirement: rewrite to add that disposal cell would be designed and constructed to meet RCRA/TSCA MTRs as described in the ROD.

Basis: RCRA/TSCA MTR, regulatory class: environmental.

Action Item: Regulators have asked "What is precedence of nomenclature?" Regulators cannot comment on classification system at this time, until more information is received on how these safety classes affect priority. The INEEL provide the company procedure to the regulators to help define classes and priorities.

009

Basis: Based on the projected operations schedule and decay of contaminants and protection of the SRPA along future surface risk to human and ecological receptors. Add underlined information.

Reference: ROD pg 11-18, pg 11-15

011

Reference: Add a reference to the ROD.

012

Delete entire requirement and the WAC will address this.

013—delete

014—delete

015—delete

016

Requirement: remove design

basis remove

018

Requirement: delete "that begins..."

note link to an assumption specific loading of land fill cells versus maintenance operation period that will be in the work plan. Explain that typically waste placement will occur from March to November and other functions will occur year round.

019

Requirement: The ICDF will be designed to operate 10 Hr per day, four days per week, however, operation on other days is not prohibited.

Section 3.2.3 DOE,EPA and State need to discuss this in more detail. The section needs to have hazardous assess to make determination.

021

Reference: Figure 5-1 page 5-2.

Delete basis

3.2.6—Add note that the operating scenario will further define this in SSSTF EDF 8.

022-note-add this information to closure and post closure plan. permanent land use restrictions will be in place with OU 3-13.

Reference: IC Plan

023—delete

025—delete

026—delete

027—make consistent with assumption M or N.

remove s to the ICDF.

3.3.5 through 3.4.3 use TBD instead of "No special installation requirements have been identified."

028

Requirement: edit as follows "The pump(s)..."

029

Requirement: Site access restrictions, security, and institutional controls shall be maintained throughout operational period—edit by clarifying security, remove close/post close.

3.5.4 QA

Edit and add information from CQA plan in DWP to be approved by agencies.

030

Requirement: edit first part of sentence to “A preliminary siting...”

Regulatory reference Table 3-1 needs to clean up per the discussions from the SSSTF assumptions and another table must be added to reference regulations that are not listed in the ROD.

OU 3-13 ICDF Path Forward

ICDF is holding to schedules; Kd studies are slightly behind. attenuation barrier is mostly up to date. More discussion is needed among all parties on the reactive barrier. Next Thursday discuss

Items for future discussions:

Should SSSTF and ICDF drawings be DOE drawings or will these be issued as INEEL drawings?

Discuss the time periods for interim storage, what will be done during these periods, and the documentation needed.

Action items:

1—piping diagram Wayne Pierre Thursday, June 15, 2000 pm, discuss Monday 6/19 noon PDT 1pm MST.1 hr

2—Phone Call June 22, 2000 1MST-4 (3.5 hr)

- path forward for interim storage—45 min
- group 4 MSIP comments—1 hr
- Reactive barrier: factual additions and design brain storming—1.15

3—Provide SSSTF table of other regulator requirements and include in revised T&FR document—no date set for the table.

4—Revise cost estimate (30%). Revise 34 pages of main document in SSSTF T&FR Appendix C and, Appendix A—Path forward and Appendix B (T&FR) and Appendix D response to comments,

5—Revised block flow diagrams of the scenarios will be provided as part of EDF 8 when ready.

Attachments:

A—Attendees

Attachment A

Attendees

Name	Company	Telephone	E-mail
Martin Doornbos	INEEL	208-526-0674	doormh@inel.gov
Dennis Myers	INEEL	208-526-3081	myerdr@inel.gov
Margie English	DEQ	208-373-0306	menglish@deq.state.id.us
Dennis Romankowski	DEQ-ENCORE	801-261-5454	encoreen@xmission.com
John Roland	Gannett Fleming	206-467-6072	jxroland@gfnet.com
Wayne Pierre	EPA-ID	206-553-7261	pierre.wayne@epa.gov
Talley Jenkins	DOE-ID	208-526-4978	jenkin@id.doe.gov
Jestin Hurst	INEEL	208-526-3115	hurscj@inel.gov
Lynn Higgins	INEEL	208-526-8201	hml@inel.gov
Dan Kennedy	NWE		
Howard Forsythe	INEEL	208-526-1603	forshs@inel.gov
S. Blair	NWE		wsblair@onewest.net
Dennis Heyen	INEEL	208-526-2516	heyedk@inel.gov
Steven Davies	INEEL	208-526-4789	sdv@inel.gov
Pam French	INEEL	208-526-9562	frenps@inel.gov
Vicki Rhoades	Gannett Fleming/EPA		vrhoades@gfnet.com
Lyle Stephenson	INEEL	208-526-3686	rstephen@inel.gov
Mitzi Miller	EQM	509-946-4985	eqmmitzi@owt.com
Bob James	INEEL	208-526-5020	jamere@inel.gov
R.L. Davison	INEEL	208-526-3770	ran@inel.gov
Michael Arndt	INEEL	208-526-4531	arndmb@inel.gov