0000412355

ENGINEERING-SCIENCE, INC. a unit of
PARSONS ENVIRONMENTAL SERVICES, INC.
1700 Broadway, Suite 900 Denver, Colorado 80290
phone: (303) 831-8100 • telecopy (303) 831-8208

MEETING MINUTES

TO: Distribution **DATE:** Augusts 30, 1994

FROM: Phil Nixon PN **MEMO #:** SP307:083094.01

PROJECT: OU4 Solar Evaporation Ponds

ATTENDEES:

M. Austin, EG&G
E. Graham, ERM
T. Broderick, ERM
P. Kadel, G&M
S. Cullen, G&M
L. Pivonka, G&M
M. McMullen, G&M
P. Nixon
W. Edmonson
H. Heidkamp
S. Stenseng
D. Creek

DISTRIBUTION:

J. Haasbeek, ERM
R. Ogg, EG&G
A. Ledford, EG&G
M. McKee, EG&G
K. Ruger, EG&G
R. Popish, EG&G (2)
D. Myers
S. Hughes
J. Dawson
K. Cutter
R. Lux
J. Hartfelder
R. McConn
R. Cropper
T. Kuykendall
R. Wilkinson
R. Glenn
Central Files

SUBJECT: Design Integration Meeting

A meeting was held between EG&G, ES, ERM, and G&M to discuss the title design package integration.

1) ERM/G&M Conceptual Design

ERM/G&M presented their revised post-closure care monitoring conceptual design based upon the modified footprint for the engineered cover.

The design includes 108 TDR sensors in the upper soil layers and in the sand drainage layer. The design also includes FDCs and Suction lysimeters below the asphalt layer in the consolidated waste. There are 3 neutron probe access tubes near the subsurface drainage layer.

(I:\PROJECTS\722446\CORRESP\08309401.WPF\08/31/94)

Walt Edmonson questioned the durability of the instruments during construction. It was discussed that there were no redundant instruments in case an instrument is damage during construction. ERM/G&M will investigate the durability of the equipment/instruments. Walt Edmonson recommended that as much protection as possible be provided for the instruments and conduit. It was discussed that the number of conduit penetrations through the engineered cover could be reduced by running multiple cables in the conduit. The conduits could also be grouted to enhance the durability. Dan Creek suggested installing the instruments upgradient from the penetration to prevent the instruments from measuring infiltrating liquid that could migrate along the conduit. Sandy Stenseng indicated that seep rings could be used to prevent liquid from migrating along the conduit.

ERM/G&M will provide vendor data to ES on the type of instruments that will be used so that ES can learn the sizes and installation requirements. Scott Broderick and Eric Graham indicated that concrete pads may not be required for mounting the equipment. The equipment may be able to be mounted on posts.

Steve Cullen indicated that radiocontrolled telemetry may be used for monitoring the system. Mark Austin stated that special permission would have to be given by EG&G security to use radio frequencies. ERM/G&M need to provide their electrical requirements to ES. Phil Nixon requested that ERM/G&M mark on the final site plan where they would like their storage shed.

2) Cross Sections

ES will provide 3 cross sections for ERM/G&M. The cross sections will be cut along the center line of the neutron access tubes.

ES will provide vertical coordinants to ERM/G&M for specifying the vertical location of the monitoring instruments. This information will be presented in the 90% design package.

ES will supply Mark Austin with drawing coordinates for certain landmarks. Mark will have the EG&G surveyers identify the coordinates of the landmarks. This will allow an assessment of the accuracy of the base map.

3) Geotechnical Monitoring System/Geotechnical Data

Dan Creek specified that the geotechnical study results will be back from the laboratory in a few weeks. It was discussed that inclinometers should be located on the North Hillside, and benchmarks should be installed in the engineered cover to allow the assessment of settlement.

4) Specifications

ERM/G&M presented a list of anticipated drawings and specifications. ES also provided a list of anticipated drawings and specifications. ES gave ERM/G&M a template for the preparation of specifications. It was agreed that ERM/G&M would use 900 series numbers for their drawings.

5) Schedule

Mark Austin will check on the schedule to inform the team as to when the 60% design package is needed.

6) Quality Verification Plan (QVP)

Mark Austin stated that ERM/G&M and ES should hold on preparing the QVP because EG&G is not sure about how QA/QC activities will be managed.