87-15

THE FOURTH TECHNICAL REVIEW COMMITTEE

HELD ON: June 9th, 1993

HELD AT: Seneca Army Depot
Romulus, New York

REPORTED BY: PATRICIA A. NELK

SENECA ARMY DEPOT

TECHNICAL REVIEW COMMITTEE

HAND OUTS

JUNE 1993

TECHNICAL REVIEW COMMITTEE

HANDOUT

INDEX

I

AGENDA FOR JUNE 9, 1993 TRC MEETING

FINAL AGENDA

FOURTH MEETING OF THE SENECA ARMY DEPOT

TECHNICAL REVIEW COMMITTEE (TRC)

Location:
Seneca Army Depot
Officers Club

WEDNESDAY, JUNE 9, 1993

12:30-12:35	Welcome **Colonel James B. Cross, Seneca Army Depot, Commanding Officer**
12:35-1:15	Site Briefing Status Update **Kevin Healy, Huntsville Division US Army Corps of Engineers**
1:15-2:00	Phase II Ash Landfill and OB Grounds Fieldwork Update **Engineering Science (ES) Inc. of Boston MA.**
2:00-2:15	TRC Charter Finalization **Jim Miller, Seneca Army Depot**
2:15-2:30	PSCR Draft & Information Repository **Randy Battaglia, Seneca Army Depot**
2:30-3:00	Question & Answer Session
3:00-3:15	Set Date & Agenda for next TRC meeting **Open Discussion**

Any questions regarding this agenda should be directed to
Seneca Army Depot, Mr. James Miller (607) 869-1532

II

SITE BRIEFING STATUS UPDATE NOTES

presentation by

U.S Army Corps of Engineers, Huntsville Division

(Kevin Healy- Senior Technical Project Manager)

GLOSSARY OF TERMS

AREA OF CONCERN (AOC) - EITHER (A) A *SOLID WASTE MANAGEMENT UNIT (SWMU)* WHERE RELEASES OF HAZARDOUS SUBSTANCES MAY HAVE OCCURRED OR (B) LOCATIONS WHERE THERE HAS BEEN A RELEASE OR THREAT OF A RELEASE INTO THE ENVIRONMENT OF A HAZARDOUS SUBSTANCE, POLLUTANT OR CONTAMINANT UNDER *CERCLA*..

CERCLA - ACRONYM FOR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980. THIS WAS THE LEGISLATION THAT SET UP THE SUPERFUND PROGRAM, WHICH IS THE PROGRAM UNDER WHICH THE WORK AT SENECA AD IS BEING CONDUCTED. *RI/FS* IS OFTEN USED AS A GENERIC TERM TO REFER TO THE OVERALL *CERCLA* PROCESS.

PRELIMINARY ASSESSMENT (PA) - FIRST STEP IN THE *CERCLA* PROCESS. SUCH AN ASSESSMENT INVOLVES RECORD SEARCHES, INTERVIEWS AND OTHER RESEARCH REQUIRED TO DETERMINE PAST PRACTICES AND THE POTENTIAL FOR PAST CONTAMINATION.

REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) - THIRD STEP IN THE *CERCLA* PROCESS. THE PURPOSE IS TO DEFINE AND DELINEATE CONTAMINATION CONFIRMED DURING THE *SITE INVESTIGATIONS* (RI) AND STUDY ALTERNATIVES FOR REMEDIATION (FS).

GLOSSARY OF TERMS (CONTINUED)

SARA - ACRONYM FOR THE "SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT" OF 1986. THIS WAS LEGISLATION REQUIRED TO REAUTHORIZE AND EXTEND THE ORIGINAL *CERCLA* LEGISLATION.

SITE INVESTIGATION (SI) - SECOND STEP IN THE *CERCLA* PROCESS. INVESTIGATIONS INVOLVE ACTUAL FIELD SAMPLING IN ORDER TO CONFIRM/DENY SUSPICIONS THAT WERE RAISED IN THE *PRELIMINARY ASSESSMENT.*

SOLID WASTE MANAGEMENT UNIT (SWMU) - ANY DISCERNABLE WASTE MANAGEMENT UNIT FROM WHICH HAZARDOUS CONSTITUENTS MIGHT MIGRATE IRRESPECTIVE OF WHETHER THE UNIT WAS INTENDED FOR THE MANAGEMENT OF SOLID AND/OR HAZARDOUS WASTE.

TRICHLOROETHYLENE (TCE) - MAIN CONTAMINANT AT THE ASH LANDFILL. IT IS KNOWN AS A VOLATILE ORGANIC COMPOUND (VERY HIGH VAPOR PRESSURES CAUSE RAPID VOLATILIZATION). TCE WAS USED EXTENSIVELY IN ARMY AND PRIVATE MANUFACTURING/MAINTENANCE OPERATIONS AS A SOLVENT, MOST NOTABLY FOR DEGREASING METAL MACHINE PARTS. IT IS NOW CONSIDERED A SUSPECTED CARCINOGEN. IT IS ALSO KNOWN AS TRICHLOROETHENE AND ITS BREAKDOWN PRODUCTS ARE DICHLOROETHYLENE AND VINYL CHLORIDE.

FOURTH MEETING OF THE

TECHNICAL REVIEW COMMITTEE

SENECA ARMY DEPOT

9 JUNE 1993

STATUS UPDATE

ASH LANDFILL AND OPEN BURNING GROUND SITES

REMEDIAL INVESTIGATIONS

- o PHASE I COMPLETED

- o PHASE II WORK
  - - COMPLETED AT OB GROUNDS
  - - DELAYED DUE TO WEATHER CONDITIONS AT THE ASH LANDFILL. COMPLETION EXPECTED BY LATE SUMMER
- o RI REPORT/FEASIBILITY STUDY FINALIZATION EXPECTED BY SPRING 1994
- o RECORD OF DECISION FINALIZATION EXPECTED BY LATE 1994

SOLID WASTE MANAGEMENT UNITS

STATUS UPDATE

SENECA ARMY DEPOT'S
HIGH PRIORITY AREAS OF CONCERN

HIGH PRIORITY AREAS OF CONCERN

SEAD-4	MUNITIONS WASHOUT FACILITY LEACH FIELD
SEAD-11	OLD CONSTRUCTION DEBRIS LANDFILL
SEAD-13	IRFNA DISPOSAL SITE
SEAD-16	ABANDONED DEACTIVATION FURNACE - BLD. S-311
SEAD-17	EXISTING DEACTIVATION FURNACE - BLD. 367
SEAD-24	ABANDONED POWDER BURNING PIT
SEAD-25	FIRE TRAINING AND DEMONSTRATION PAD
SEAD-26	FIRE TRAINING PIT
SEAD-45	OPEN DETONATION GROUNDS
SEAD-57	EXPLOSIVE ORDNANCE DISPOSAL AREA

SITE INVESTIGATIONS

- FINAL WORK PLAN REVISIONS EXPECTED BY JULY 1993

- SI FIELD WORK INITIATED BY SEPTEMBER 1993. ACTUAL CONTRACTS FOR IMPLEMENTATION HAVE BEEN AWARDED.

STATUS UPDATE

SENECA ARMY DEPOT'S
MODERATE PRIORITY AREAS OF CONCERN

SITE INVESTIGATIONS

- o WORK PLAN PREPARATION ON-GOING
  - COMPLETION OF DRAFT BY JULY 1993
  - REGULATORY REVIEW AND REVISION DURING SUMMER 1993
  - INITIATION OF FIELD WORK BY FALL 1993

MODERATE PRIORITY AREAS OF CONCERN

SEAD-5	SEAD-59
SEAD-9	SEAD-60
SEAD-12	SEAD-62
SEAD-43 **	SEAD-63
SEAD-44	SEAD-64
SEAD-46	SEAD-67
SEAD-50 *	SEAD-68
SEAD-54 *	SEAD-69 **
SEAD-56 **	SEAD-70
SEAD-58	SEAD-71

* SWMU'S 50 AND 54 WILL BE INVESTIGATED AS ONE AOC.
** SWMU'S 43, 56 AND 69 WILL BE INVESTIGATED AS ONE AOC.

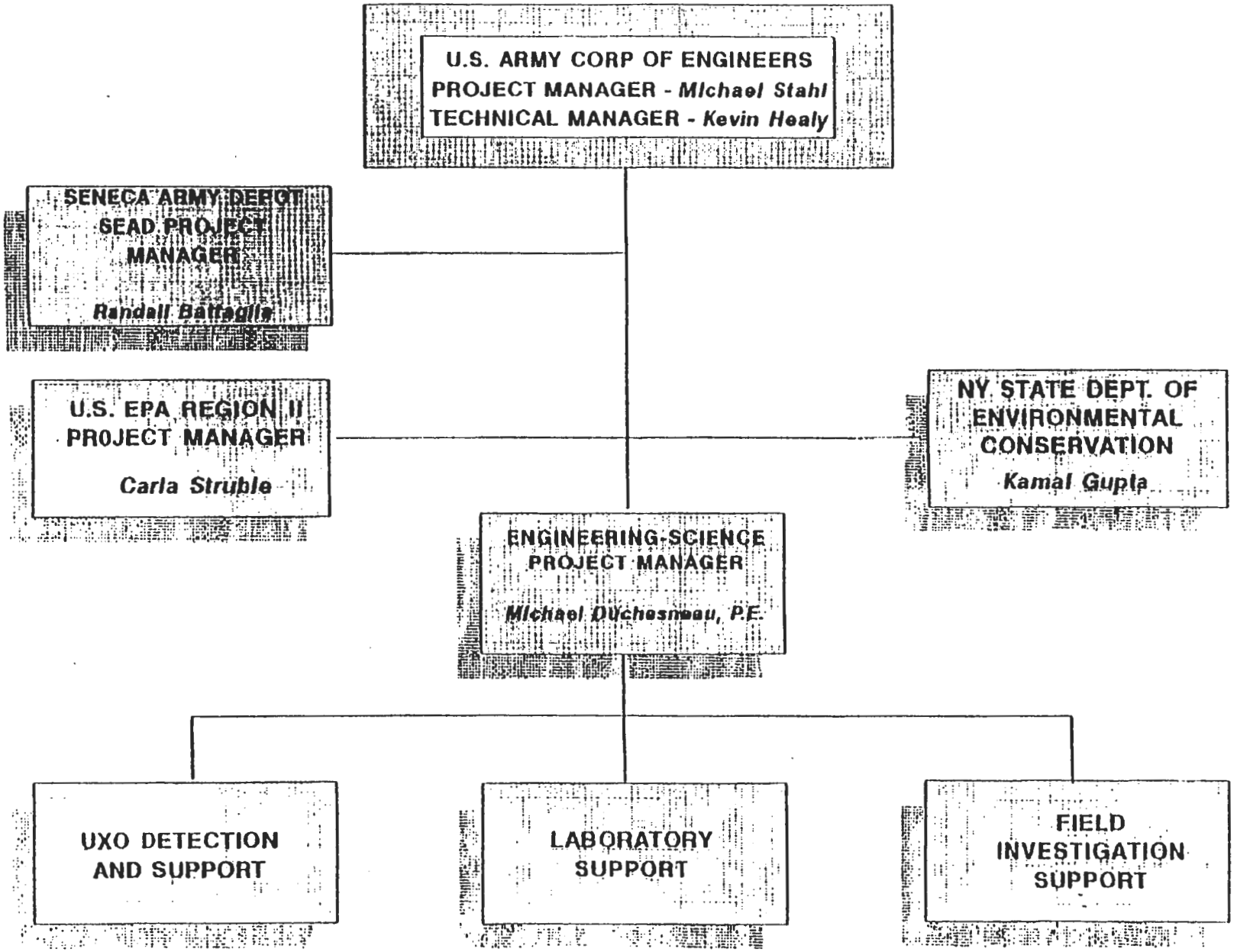
III

Phase II Fieldwork Update Overheads

prepared by

Michael N. Duchesneau, Senior Environmental Engineer
Engineering Science, Inc.

SENECA ARMY DEPOT
PROJECT ORGANIZATION CHART



REMEDIAL INVESTIGATION (RI) OF THE FORMER OPEN BURNING GROUNDS & ASH LANDFILL

INVESTIGATIVE APPROACH AT THE OB GROUNDS

- ☑ **TWO-PHASED PROGRAM**
- ☑ **CONSTITUENTS TO BE EVALUATED**
  - **Explosives**
  - **Heavy Metals**
  - **Semi-Volatile Organics**
  - **Volatile Organics**
  - **PCBs/Pesticides**
  - **Nitrates**
  - **pH**
- ☑ **SCREENING OF SOIL SAMPLES**
  - **Heavy Metals - Lead**
  - **Explosives - TNT**
  - **Volatile Organics - Total Volatiles**
  - **Geophysics**
- ☑ **UXO CLEARANCE (REMOTE CONTROL DRILLING)**
- ☑ **ELECTROMAGNETIC SURVEYS**
- ☑ **GROUND PENETRATING RADAR SURVEYS**

REMEDIAL INVESTIGATION (RI) OF THE FORMER OPEN BURNING GROUNDS & ASH LANDFILL

INVESTIGATIVE APPROACH AT THE OB GROUNDS

AREAS AND MEDIA TO BE EVALUATED

- Former Burn Pads (9) - Pad Borings
- Berms Surrounding Each Pad - Berm Excavations
- Low Lying Hill (2000 ft) - Hill Excavations
- Area Between Each Pad - Grid Borings
- Groundwater - Monitoring Wells
- Surface Soil - Downwind Soil Samples
- Surface Water - Reeder Creek & On-Site
- Sediment - Reeder Creek & On-Site
- Background Soils & Water
- Biota

REMEDIAL INVESTIGATION (RI) OF THE FORMER OPEN BURNING GROUNDS & ASH LANDFILL

PHASE II - OB INVESTIGATION

☑ **SOILS**

- 22 Pad Boring Locations
- 14 Grid Boring Locations
- 28 Berm Excavation Locations
- 43 Low Hill Excavation Locations
- 11 Downwind Surficial Soil Sample Locations
- 4 Burn Kettle Soil Sample Locations

☑ **SURFACE WATER/SEDIMENT SAMPLING**

- 10 Locations On-Site
- 3 Locations Within Reeder Creek

☑ **GROUNDWATER**

- 6 Monitoring Wells Added

REMEDIAL INVESTIGATION (RI) OF THE FORMER OPEN BURNING GROUNDS & ASH LANDFILL

INVESTIGATIVE APPROACH AT THE ASH LANDFILL

☑ **TWO-PHASED PROGRAM**

☑ **CONSTITUENTS OF CONCERN**

- Volatile Organic Compounds
- Semi-Volatile Organic Compounds
- Herbicides
- Pesticides / PCBs
- Heavy Metals

☑ **AREAS TO BE INVESTIGATED**

- Ash Landfill and adjacent areas
- Non-Combustible Fill Landfill
- Groundwater (Overburden and Bedrock)
- Soils
- Surface Water
- Soil Gas
- Air
- Sediment
- Background
- Biota

☑ **SCREENING TECHNIQUES UTILIZED**

- Soil Gas Survey
- Geophysics
  - ▸ Electromagnetic Survey
  - ▸ Ground Penetrating Radar Survey
- Fracture Trace Analysis
- Geologic Mapping of Fractures

REMEDIAL INVESTIGATION (RI) OF THE FORMER OPEN BURNING GROUNDS & ASH LANDFILL

PHASE II - ASH LANDFILL INVESTIGATION

- [x] **PHOTO-LINEAMENT AND FRACTURE TRACE ANALYSIS**

- [x] **GEOPHYSICAL SURVEY**
  - ▸ Very Low Frequency Survey (VLF)

- [x] **SOIL GAS SURVEY**
  - ▸ 50 Locations

- [x] **TEST PITS**
  - ▸ 10 Test Pits

- [x] **SOILS**
  - ▸ 16 Soil Boring Locations

- [x] **OVERBURDEN MONITORING WELLS**
  - ▸ 8 Monitoring Wells

- [x] **BEDROCK MONITORING WELL CLUSTERS**
  - ▸ 4 Double Cased to 20 Feet
  - ▸ 4 Triple Cased to a maximum of 100 Feet

IV

NYSDEC and USEPA TRC Charter Comments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION II
JACOB K. JAVITS FEDERAL BUILDING
NEW YORK, NEW YORK 10278-0012

APR 2 8 1993

Mr. Randall Battaglia
Environmental Coordinator
Seneca Army Depot
Romulus, New York 14541

Re: TRC Charter

Dear Mr. Battaglia:

The following comments pertain to the revised Technical Review Committee (TRC) Charter:

1. Section III: Purpose, paragraphs 3, 5, and 6 - A separate section should be added to include these paragraphs. They do not describe the purpose of the TRC, but rather disclaimers.

2. Section IV: Structure, paragraph 1 - "TRC Members:" should precede "Appendix 2.0..."

3. Section VI: Specific Committee Member Responsibilities - Please identify the chair of the TRC.

4. Section VI: Specific Committee Member Responsibilities, (2)(b) and (3)(b) - These objectives are accomplished by review of actions under the Federal Facility Agreement, and not by the forum provided by the TRC. Please revise this.

5. Section VII: Revision and Termination of the Charter - Amendment of the Charter should not be limited to the Commander, but any TRC member should have this right, and any approval should be by mutual consensus.

6. Section VIII: Effective Date - The effective date of the Charter should be the date of the last signature.

7. Kathleen Callahan, Director, Emergency and Remedial Response Division will be signing the TRC Charter for the USEPA.

Please call me at (212) 264-4595 to discuss these comments before the document is revised.

Sincerely yours,

Carla M. Struble
Federal Facilities Section

cc: J. Miller, SEAD
K. Gupta, NYSDEC
M. Stahl, ACE

New York State Department of Environmental Conservation
50 Wolf Road, Albany, New York 12233-7010

Thomas C. Jorling
Commissioner

February 23, 1993

Mr. James Miller
Environmental Coordinator
Seneca Army Depot
Romulus, NY 14541

Re: Seneca Army Depot TRC Charter

Dear Mr. Miller:

We have reviewed the Draft Final TRC Charter for the Seneca Army Depot and find that one deficiency remains. Section VI lists the responsibilities of the members representing the agencies, i.e., the Army, the Federal Environmental Protection Agency, the State Department of Environmental Conservation and several towns (Romulus, Varick and Ovid). But two representatives namely Kim Mann (now replaced by Ms. Lonnie Rafferty, please make this change) representing State Department of Health and Brian Dombrowski representing the Seneca County Department of Health have no responsibilities. We suggest the following be added in Section VI to correct this deficiency.

5. Responsibilities of the NYSDOH Representatives:

The NYSDOH representatives should use the TRC as a forum for assisting the NYSDEC representative in proposing any State health standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminant which will remain or be treated on site.

6. Responsibilities of the County Health Department Representatives:

The County Health Department representatives should use the TRC as a forum for reviewing and commenting on any proposed federal or State health standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminant which will remain or be treated on site.

In addition, please make the following editorial changes:

- Section III, Item (3). Delete this subsection as the IAG is already signed by all the parties.

- Section III, Item (6). Please revise to read as follows: "The provision of the IAG pursuant to CERCLA 120(e)(2) with reference to this site will govern if a conflict arises between the provision and the terms of this charter."

- Section VI, Item (1)(c). Please change "attenders" to "attendees".

- Section VI, Item (2)(c) and Item (3)(c) second line before the IAG change "any" to "the".

If you have any questions, please call me at (518) 457-3976.

Sincerely,

Kamal Gupta

Kamal Gupta
Federal Projects Section
Bureau of Eastern Remedial Action
Div. of Hazardous Waste Remediation

cc: G. Kittal, SEAD
S. Absolom, SEAD
R. Battaglia, SEAD
C. Struble, USEPA-Region II
L. Rafferty, NYSDOH
B. Dombrowski, SCDH

V

TRC Charter Responses

Prepared By

Jim Miller, Environmental Protection Specialist
Seneca Army Depot

TECHNICAL REVIEW COMMITTEE CHARTER

for

SENECA ARMY DEPOT

ROMULUS N.Y.

I. Agencies Forming the Technical Review Committee (TRC) -

This Technical Review Committee (TRC) Charter is being entered into by the U.S. Army, the New York State Department of Environmental Conservation (NYSDEC), the U.S. Environmental Protection Agency (USEPA) and the local authorities.

II. Basis and Authority for the TRC Charter -

The basis and authority for this Charter is the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), particularly Sections 120(a), 120(f) and 121(f); 10 U.S.C 2705, enacted by Section 211 of SARA; Army Regulation 200-1, Section 9-10.

III. Purpose -

(1) The primary purpose of the TRC is to establish a body which will facilitate communication and coordination among members. The TRC is intended to provide a forum for cooperation between the U.S. Army, concerned local officials and citizens, and the regulatory agencies in order to provide a meaningful opportunity for members of the TRC to become informed and to express their opinion about the technical aspects of the Remedial Investigation/Feasibility Study (RI/FS) or Remedial Design/Remedial Action (RD/RA) process at any site at Seneca Army Depot (SEAD).

(2) A purpose of the TRC shall be to coordinate technical review procedures and schedules to be followed by the Army during the Installation Restoration Program (IRP) for SEAD.

CHANGES

PARAGRAPH THREE (3) HAS BEEN DELETED BASED ON 23 FEB 93 NYSDEC COMMENTS. THIS PARAGRAPH IS NO LONGER REQUIRED, SINCE A FINAL IAG HAS BEEN DEVELOPED.

~~(3) This TRC shall in no way affect the U.S. Army's obligation to develop a federal facilities Interagency Agreement (IAG) for SEAD.~~

CHANGES

PARAGRAPH FOUR (4) WILL BE MOVED TO NEW CHARTER SECTION X, ENTITLED DISCLAIMERS, BASED ON 28 APRIL 93 USEPA COMMENTS.

~~(4) The Charter does not create obligations which are legally binding on the NYSDEC, USEPA, U.S. Army, NYS Department of Health, Seneca County Department of Health, local authorities, or the signatories herein listed, including any citizen participants. The goal of the charter is to provide guidance and structure to meetings of the TRC, and to maximize efficient use of time during the meetings. This will enhance coordination among TRC members which will result in the best possible solutions regarding the Restoration of Hazardous Waste Sites at Seneca Army Depot.~~

CHANGES

PARAGRAPH FIVE (5) WILL BE MOVED TO NEW CHARTER SECTION X, ENTITLED DISCLAIMERS, BASED ON 28 APRIL 93 USEPA COMMENTS.

~~(5) Nothing in this charter impairs, alters, limits or in any way affects NYSDEC's, U.S. Army's or the USEPA's statutory or common law rights, including, but not limited to, the right under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and NYS Environmental Conservation Law. No statements made in this charter shall be deemed a statement, admission or position adopted by the NYSDEC, U.S. Army or the USEPA.~~

CHANGES

PARAGRAPH SIX (6) WILL BE REPLACED WITH PREFERRED NYSDEC LANGUAGE (see NYSDEC 23 FEB 93 COMMENTS). THIS PARAGRAPH WILL BE MOVED TO A NEW CHARTER SECTION ON DISCLAIMERS PER USEPA COMMENTS DATED 28 APRIL 93.

DELETE :

~~(6) In the event the State of New York enters into an IAG pursuant to CERCLA 120(e)(2) with reference to this site, the provisions of the IAG will govern if a conflict arises between the provisions and the terms of this charter.~~

REPLACE WITH:

(6) The provision of the IAG pursuant to CERCLA 120 (e) (2) with reference to this site will govern if a conflict arises between the provision and terms of this charter.

IV. Structure -

CHANGES
PARAGRAPH ONE (1) WILL BE AMENDED IN ACCORDANCE WITH USEPA 28 APR 93 COMMENTS. THE HEADER "TRC MEMBERSHIP" HAS BEEN ADDED. ADDITIONALLY, THE ARMY IS REVISING APPENDIX 2.0 TO REFLECT TRC MEMBERSHIP AS OF JANUARY 21, 1993.

ADD: *TRC MEMBERSHIP*

(1) Appendix 2.0 of this Charter presents a listing of TRC members as of ~~July 8, 1992~~ (replace with January 21, 1993). Absences of any of the members listed in Appendix 2.0 from the TRC due to illness, job transfer or unavailability, may be filled by a duly designated representative.

(2) *Working Sessions of the TRC:*

(a) In accordance with AR 200-1, section 9-10(b), meetings of the TRC will consist of working meetings and public information meetings. Working sessions will consist of the U.S. Army and regulatory agency conducting discussion of operational progress, recommended Applicable Relevant and Appropriate Requirements (ARAR's), problems, and scheduling. At working sessions, the TRC members, who are community representatives, are full participants in the discussions. Working meetings will be held at Seneca Army Depot on a quarterly basis during normal business hours.

(b) Working sessions will serve to facilitate and enhance the Army's decision making process regarding all phases of the IRP process leading to the implementation of remedial responses at SEAD. While concurrence and consensus on various issues will be reached at working sessions, which will ultimately provide direction to the IRP program at the Depot, final decisions will not be made by either the Army, NYSDEC or USEPA remedial Project Managers during TRC meetings. Recommendations of committee members are not binding on SEAD or the Army.

(c) Working sessions of the TRC are open to the general public and/or news media. Sufficient notice will be posted in print media and by mail, and also by broadcast media if community interest is substantial.

(3) *Public Information Meetings:*

(a) At certain milestones in the IRP process, as indicated in the soon to be finalized Community Relations Plan (CRP) for SEAD, public meetings will be held to discuss project activities. The Depot will organize these public meetings and TRC members will be expected to attend. The TRC members will constitute the panel of experts at these public meetings.

(b) Public Information Meetings will be held in the evening, during dates convenient to the general public. Advance notification of the public meeting will be provided by SEAD in a major local newspaper of general circulation.

V. General Responsibilities of Committee Members -

(1) Each TRC member will be entitled to one vote with respect to the inclusion of new members, the scheduling of meetings, and on any other issues before the committee.

CHANGES
SEAD is revising the charter to indicate the correct TRC meeting place.

(2) When requested by any TRC member, more frequent meetings or an alternate location may be called by the Chair upon a simple majority vote by present voting members. The normal meeting place for working sessions of the TRC will be at Seneca Army Depot, ~~Building 101~~ , (replace with building 142 (NCO CLUB)) Romulus, N.Y.

(3) In the event that any member cannot be in attendance for a scheduled meeting of the TRC, the Chair should be contacted two (2) days in advance of the scheduled meeting. A substitute for the absentee committee member may be appointed by the non-attending member.

(4) TRC members wishing to comment on and make recommendations about proposed IRP actions to be taken at SEAD must submit their comments and recommendations, in writing, to the Chair.

(5) Members will serve without compensation. All expenses incident to travel and review inputs will be born by the respective members organization.

(6) For working sessions of the TRC, members intent on bringing guests (contractors, additional technical representatives of the TRC members agencies, or any other employee of the members agency or group) should notify the Chair in advance of any scheduled TRC meeting, to insure necessary physical accommodations. Attendance by members representing any new group or agency not described in Section IV (1) of this Charter shall be an agenda at a working session of the TRC for discussion.

(7) If an imminent health hazard is discovered by any member during the effort covered by the Charter, immediate action will be taken to notify all TRC members in addition to the required notification by the installation to regulatory agencies and appropriate local health officials. Additionally, the installation may take appropriate emergency response measures.

VI. Specific Committee Member Responsibilities -

CHANGES
THIS PARAGRAPH HAS BE REVISED TO INDICATE WHO IS RESPONSIBLE FOR CHAIRING THE TRC (see USEPA 28 APRIL 93 comments).

(1) *Responsibilities of the U.S. Army:*

DELETE:

~~(a) The Chair shall convene each meeting and preside over the orderly administration of TRC business.~~

REPLACE WITH:

(a) The Commanding Officer of Seneca Army Depot shall serve as the TRC Chair, and preside over the orderly administration of TRC business.

(b) The Chair is responsible for notifying each member, in writing, of the date, time, location and agenda of all TRC meetings.

CHANGES
THIS PARAGRAPH WILL BE REPLACED WITH PREFERRED NYSDEC LANGUAGE (see NYSDEC 23 FEB 93 comments).

(c) The Chair is responsible for collecting a written list of ~~attenders~~ (replace with " attendees") at each meeting and assuring the written list of attenders is incorporated into the minutes.

(d) The Chair is responsible for assuring that the minutes for each TRC meeting are recorded and copies are provided to each committee member within fifteen (15) days of the date of any such meeting. The Chair is also responsible for assuring the minutes are promptly incorporated into the Information Repository or appropriate Administrative Record files.

(e) The Chair is responsible for maintaining a mailing list for organizations that wish to receive meeting minutes, the upcoming agenda, and other TRC notices. Mailings should be sent in a timely manner.

(f) In the event that the Chair is unable to attend a TRC meeting, the Executive Secretary shall serve as Acting Chair.

(g) The TRC member representing the Huntsville Division of the U.S. Army Corps of Engineers (CEHND) is responsible for, when necessary, supplying appropriate visual aids and other materials associated with conducting presentations relating to past and future IRP projects, issues and progress at SEAD. CEHND will deliver presentations as appropriate, provided ample notification of the need for a presentation is provided by the Chair.

(2) *Responsibilities of the USEPA Representatives:*

(a) The USEPA shall notify the Chair two (2) weeks in advance of a scheduled meeting of the TRC if USEPA consultants will be attending the TRC meetings.

CHANGES
BASED ON USEPA COMMENTS, THE STATED FORUM PROVIDED BY THE TRC HAS BEEN CHANGED.

DELETE:

~~(b) The USEPA representatives should use the TRC as a forum for proposing any Federal standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminate which will remain or be treated on site.~~

REPLACE WITH:

(b) The USEPA should use the TRC as a forum through which advice can be given to the regulated agencies on environmental restoration and waste management and technology development issues related to environmental restoration.

CHANGES
THIS PARAGRAPH WILL BE REPLACED WITH PREFERRED NYSDEC LANGUAGE (see NYSDEC 23 FEB 93 comments).

(c) The USEPA's participation in this TRC shall be in addition to and not in lieu of the relationship and obligation established by ~~any~~ (replace with "the") IAG developed pursuant to section 120 of CERCLA, 42 U.S.C., Section 9620 for SEAD.

(3) *Responsibilities of the NYSDEC Representatives:*

(a) The NYSDEC shall notify the Chair two (2) weeks in advance of a scheduled meeting of the TRC if NYSDEC consultants will be attending the TRC meetings.

CHANGES

BASED ON USEPA COMMENTS, THE STATED FORUM PROVIDED BY THE TRC HAS BEEN CHANGED.

DELETE:

~~(b) The NYSDEC representatives should use the TRC as a forum for proposing any State standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminate which will remain or be treated on site.~~

REPLACE WITH:

(b) The NYSDEC should use the TRC as a forum through which advice can be given to the regulated agencies on environmental restoration and waste management and technology development issues related to environmental restoration.

(c) The NYSDEC's participation on this TRC shall be in addition to and not in lieu of the relationship and obligation established by any IAG developed pursuant to section 120 of CERCLA, 42 U.S.C. Section 9620 for SEAD.

(4) *Responsibility of Town Officials:*

(a) TRC members that are official town representatives have the responsibility of keeping Town Councilmen, relevant Town Boards and town organizations up to date regarding environmental restoration activities at Seneca Army Depot.

(b) TRC members who are local government officials have the responsibility to participate in the planning and selection of Army response actions by reviewing and, where warranted, commenting on various Installation Restoration program actions.

CHANGES
THIS SECTION HAS BEEN EXPANDED TO INCLUDE A MORE DETAILED DESCRIPTION OF NYSDOH AND LOCAL HEALTH DEPARTMENT RESPONSIBILITIES (see NYSDEC 23 FEB 93 comments).

ADD:

(5) *Responsibilities of NYSDOH Representatives*:

The NYSDOH representative should use the TRC as a forum for assisting the NYSDEC representative in proposing any State health standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminate which will remain or be treated on site.

ADD:

(6) *Responsibilities of the County Health Department Representatives*:

The County Health Department representative should use the TRC as a forum for assisting the NYSDOH representative in proposing any county or municipal health standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminate which will remain or be treated on site

VII. Revision and Termination of the Charter -

CHANGES
PARAGRAPH ONE (1) HAS BEEN REVISED TO INDICATE THAT THE CHARTER MAY BE REVISED AT THE RECOMMENDATION OF ANY MEMBER (see USEPA 28 APRIL 93 comments).

DELETE:

~~(1) This charter may be amended from time to time as requested by the Commander of Seneca Army Depot, or by mutual consensus of the TRC members. Such amendments shall be in writing.~~

ADD:

(1) This charter may be amended from time to time as requested by any charter member, and any approval should be by mutual consensus.

(2) The provisions of this Charter shall be satisfied and considered complete when all members agree so in writing.

VIII. Effective Date -

CHANGES
PARAGRAPH ONE (1) WILL BE REVISED WITH TO REFLECT USEPA's DESIRED EFFECTIVE DATE (see USEPA 28 APRIL 93 comments).

DELETE:

~~(1) The effective date of this charter shall be the signature of the Commanding Officer of Seneca Army Depot~~

REPLACE WITH:

(1) The effective date of this charter shall be the date of the last signature.

IX. Proposed Signatories to the Implementation of the TRC Charter -

All members entering into this Charter recognize that mutual consensus and cooperation will result in the best possible solutions to potential and actual environmental problems and protect the health and welfare of the local citizenry and the environment.

CHANGE
A NEW SECTION ENTITLED DISCLAIMERS HAS BEEN ADDED.

ADD:

X. DISCLAIMERS-

(1) The Charter does not create obligations which are legally binding on the NYSDEC, USEPA, U.S. Army, NYS Department of Health, Seneca County Department of Health, local authorities, or the signatories herein listed, including any citizen participants. The goal of the charter is to provide guidance and structure to meetings of the TRC, and to maximize efficient use of time during the meetings. This will enhance coordination among TRC members which will result in the best possible solutions regarding the Restoration of Hazardous Waste Sites at Seneca Army Depot.

(2) Nothing in this charter impairs, alters, limits or in any way affects NYSDEC's, U.S. Army's or the USEPA's statutory or common law rights, including, but not limited to, the right under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and NYS Environmental Conservation Law. No statements made in this charter shall be deemed a statement, admission or position adopted by the NYSDEC, U.S. Army or the USEPA.

(3) The provision of the IAG pursuant to CERCLA 120(e)(2) with reference to this site will govern if a conflict arises between the provisions and the terms of this charter.

_____ _____

Allen Nivison DATE
Town of Romulus Supervisor

_____ _____

Kenneth Strafford DATE
Township of Varick Supervisor

_____ _____

Robert Favraeu DATE
Ovid Town Supervisor

_____ _____

Michael J. O'Toole DATE
Director, Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation

ADD:

_____ _____

George Pavlou DATE
Acting Division Director, ERRD
U.S. Environmental Protection Agency, Region II

_____ _____

James B. Cross DATE
Colonel, U.S.Army
Commanding Officer

APPENDIX 1.0
ARMY REGULATION 200-1
Section 9-10

VI

Final TRC Charter

Prepared By

Jim Miller, Environmental Protection Specialist
Seneca Army Depot

TECHNICAL REVIEW COMMITTEE CHARTER

for

SENECA ARMY DEPOT

ROMULUS N.Y.

I. Agencies Forming the Technical Review Committee (TRC) -

This Technical Review Committee (TRC) Charter is being entered into by the U.S. Army, the New York State Department of Environmental Conservation (NYSDEC), the U.S. Environmental Protection Agency (USEPA) and the local authorities.

II. Basis and Authority for the TRC Charter -

The basis and authority for this Charter is the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), particularly Sections 120(a), 120(f) and 121(f); 10 U.S.C 2705, enacted by Section 211 of SARA; Army Regulation 200-1, Section 9-10.

III. Purpose -

(1) The primary purpose of the TRC is to establish a body which will facilitate communication and coordination among members. The TRC is intended to provide a forum for cooperation between the U.S. Army, concerned local officials and citizens, and the regulatory agencies in order to provide a meaningful opportunity for members of the TRC to become informed and to express their opinion about the technical aspects of the Remedial Investigation/Feasibility Study (RI/FS) or Remedial Design/Remedial Action (RD/RA) process at any site at Seneca Army Depot (SEAD).

(2) A purpose of the TRC shall be to coordinate technical review procedures and schedules to be followed by the Army during the Installation Restoration Program (IRP) for SEAD.

IV. Structure -

TRC membership

(1) Appendix 2.0 of this Charter presents a listing of TRC members as of January 21, 1993. Absences of any of the members listed in Appendix 2.0 from the TRC due to illness, job transfer or unavailability, may be filled by a duly designated representative.

(2) *Working Sessions of the TRC:*

(a) In accordance with AR 200-1, section 9-10(b), meetings of the TRC will consist of working meetings and public information meetings. Working sessions will consist of the U.S. Army and regulatory agency conducting discussion of operational progress, recommended Applicable Relevant and Appropriate Requirements (ARAR's), problems, and scheduling. At working sessions, the TRC members, who are community representatives, are full participants in the discussions. Working meetings will be held at Seneca Army Depot on a quarterly basis during normal business hours.

(b) Working sessions will serve to facilitate and enhance the Army's decision making process regarding all phases of the IRP process leading to the implementation of remedial responses at SEAD. While concurrence and consensus on various issues will be reached at working sessions, which will ultimately provide direction to the IRP program at the Depot, final decisions will not be made by either the Army, NYSDEC or USEPA remedial Project Managers during TRC meetings. Recommendations of committee members are not binding on SEAD or the Army.

(c) Working sessions of the TRC are open to the general public and/or news media. Sufficient notice will be posted in print media and by mail, and also by broadcast media if community interest is substantial.

(3) *Public Information Meetings:*

(a) At certain milestones in the IRP process, as indicated in the soon to be finalized Community Relations Plan (CRP) for SEAD, public meetings will be held to discuss project activities. The Depot will organize these public meetings and TRC members will be expected to attend. The TRC members will constitute the panel of experts at these public meetings.

(b) Public Information Meetings will be held in the evening, during dates convenient to the general public. Advance notification of the public meeting will be provided by SEAD in a major local newspaper of general circulation.

V. General Responsibilities of Committee Members -

(1) Each TRC member will be entitled to one vote with respect to the inclusion of new members, the scheduling of meetings, and on any other issues before the committee.

(2) When requested by any TRC member, more frequent meetings or an alternate location may be called by the Chair upon a simple majority vote by present voting members. The normal meeting place for working sessions of the TRC will be at Seneca Army Depot, Building 142 (NCO Club), Romulus, N.Y.

(3) In the event that any member cannot be in attendance for a scheduled meeting of the TRC, the Chair should be contacted two (2) days in advance of the scheduled meeting. A substitute for the absentee committee member may be appointed by the non-attending member.

(4) TRC members wishing to comment on and make recommendations about proposed IRP actions to be taken at SEAD must submit their comments and recommendations, in writing, to the Chair.

(5) Members will serve without compensation. All expenses incident to travel and review inputs will be born by the respective members organization.

(6) For working sessions of the TRC, members intent on bringing guests (contractors, additional technical representatives of the TRC members agencies, or any other employee of the members agency or group) should notify the Chair in advance of any scheduled TRC meeting, to insure necessary physical accommodations. Attendance by members representing any new group or agency not described in Section IV (1) of this Charter shall be an agenda at a working session of the TRC for discussion.

(7) If an imminent health hazard is discovered by any member during the effort covered by the Charter, immediate action will be taken to notify all TRC members in addition to the required notification by the installation to regulatory agencies and appropriate local health officials. Additionally, the installation may take appropriate emergency response measures.

VI. Specific Committee Member Responsibilities -

(a) The Commanding Officer of Seneca Army Depot shall serve as the TRC Chair, and preside over the orderly administration of TRC business.

(b) The Chair is responsible for notifying each member, in writing, of the date, time, location and agenda of all TRC meetings.

(c) The Chair is responsible for collecting a written list of attendees at each meeting and assuring the written list of attenders is incorporated into the minutes.

(d) The Chair is responsible for assuring that the minutes for each TRC meeting are recorded and copies are provided to each committee member within fifteen (15) days of the date of any such meeting. The Chair is also responsible for assuring the minutes are promptly incorporated into the Information Repository or appropriate Administrative Record files.

(e) The Chair is responsible for maintaining a mailing list for organizations that wish to receive meeting minutes, the upcoming agenda, and other TRC notices. Mailings should be sent in a timely manner.

(f) In the event that the Chair is unable to attend a TRC meeting, the Executive Secretary shall serve as Acting Chair.

(g) The TRC member representing the Huntsville Division of the U.S. Army Corps of Engineers (CEHND) is responsible for, when necessary, supplying appropriate visual aids and other materials associated with conducting presentations relating to past and future IRP projects, issues and progress at SEAD. CEHND will deliver presentations as appropriate, provided ample notification of the need for a presentation is provided by the Chair.

(2) *Responsibilities of the USEPA Representatives:*

(a) The USEPA shall notify the Chair two (2) weeks in advance of a scheduled meeting of the TRC if USEPA consultants will be attending the TRC meetings.

(b) The USEPA should use the TRC as a forum through which advice can be given to the regulated agencies on environmental restoration and waste management and technology development issues related to environmental restoration.

(c) The USEPA's participation in this TRC shall be in addition to and not in lieu of the relationship and obligation established by the IAG developed pursuant to section 120 of CERCLA, 42 U.S.C., Section 9620 for SEAD.

(3) *Responsibilities of the NYSDEC Representatives:*

(a) The NYSDEC shall notify the Chair two (2) weeks in advance of a scheduled meeting of the TRC if NYSDEC consultants will be attending the TRC meetings.

(b) The NYSDEC should use the TRC as a forum through which advice can be given to the regulated agencies on environmental restoration and waste management and technology development issues related to environmental restoration.

(c) The NYSDEC's participation on this TRC shall be in addition to and not in lieu of the relationship and obligation established by any IAG developed pursuant to section 120 of CERCLA, 42 U.S.C. Section 9620 for SEAD.

(4) *Responsibility of Town Officials:*

(a) TRC members that are official town representatives have the responsibility of keeping Town Councilmen, relevant Town Boards and town organizations up to date regarding environmental restoration activities at Seneca Army Depot.

(b) TRC members who are local government officials have the responsibility to participate in the planning and selection of Army response actions by reviewing and, where warranted, commenting on various Installation Restoration program actions.

(5) *Responsibilities of NYSDOH Representatives*:

The NYSDOH representative should use the TRC as a forum for assisting the NYSDEC representative in proposing any State health standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminate which will remain or be treated on site.

(6) *Responsibilities of the County Health Department Representatives*:

The County Health Department representatives should use the TRC as a forum for assisting the NYSDOH representative in proposing any county or municipal health standard, requirement, criteria, or limitation that is legally applicable or relevant and appropriate under the circumstances of the release or threatened release of any hazardous substance, pollutant or contaminate which will remain or be treated on site

VII. Revision and Termination of the Charter -

(1) This charter may be amended from time to time as requested by any charter member, and any approval should be by mutual consensus.

(2) The provisions of this Charter shall be satisfied and considered complete when all members agree so in writing.

VIII. Effective Date -

(1) The effective date of this charter shall be the date of the last signature.

IX. Proposed Signatories to the Implementation of the TRC Charter -

All members entering into this Charter recognize that mutual consensus and cooperation will result in the best possible solutions to potential and actual environmental problems and protect the health and welfare of the local citizenry and the environment.

X. DISCLAIMERS-

(1) The Charter does not create obligations which are legally binding on the NYSDEC, USEPA, U.S. Army, NYS Department of Health, Seneca County Department of Health, local authorities, or the signatories herein listed, including any citizen participants. The goal of the charter is to provide guidance and structure to meetings of the TRC, and to maximize efficient use of time during the meetings. This will enhance coordination among TRC members which will result in the best possible solutions regarding the Restoration of Hazardous Waste Sites at Seneca Army Depot.

(2) Nothing in this charter impairs, alters, limits or in any way affects NYSDEC's, U.S. Army's or the USEPA's statutory or common law rights, including, but not limited to, the right under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and NYS Environmental Conservation Law. No statements made in this charter shall be deemed a statement, admission or position adopted by the NYSDEC, U.S. Army or the USEPA.

(3) In the event the State of New York enters into an IAG pursuant to CERCLA 120(e)(2) with reference to this site, the provisions of the IAG will govern if a conflict arises between the provisions and the terms of this charter.

Allen Nivison
Town of Romulus Supervisor

DATE

Kenneth Strafford
Township of Varick Supervisor

DATE

Robert Favraeu
Ovid Town Supervisor

DATE

Michael J. O'Toole
Director, Division of Hazardous Waste Remediation
New York State Department of Environmental Conservation

DATE

George Pavlou
Acting Division Director, ERRD
U.S. Environmental Protection Agency, Region II

DATE

James B. Cross
Colonel, U.S.Army
Commanding Officer

DATE

APPENDIX 1.0
ARMY REGULATION 200-1
Section 9-10

Appendix 2.0 - TRC Member as of January 21, 1993

MEMBER	MEMBERS AGENCY or GROUP
Colonel James B. Cross, Chairman	U.S Army - Seneca Army Depot
Gary W. Kittell, Executive Secretary	U.S. Army - Seneca Army Depot
Stephen M. Absolom	U.S. Army - Seneca Army Depot
Jeremiah Whitaker	U.S. Army - Seneca Army Depot
Randall Battaglia	U.S. Army - Seneca Army Depot
Thomas Enroth	U.S. Army - Seneca Army Depot
Kevin Healy	U.S. Army Corps of Engineers - Huntsville Division
Dr. Kathleen Bucchi	U.S Army Toxic and Hazardous Materials Agency
John Biernacki	U.S. Army - Depot Systems Command
Emmy T. Thomee	New York State Department of Health
Brian Dombrowski	Seneca County Department of Health
Carla Struble	U.S. Environmental Protection Agency, Region II
Kamal Gupta	New York State Department of Environmental Conservation
Frank Ricotta	New York State Department of Environmental Conservation
Dr. Richard A. Durst	Township of Varick, N.Y.
Allen Nivison	Township of Romulus, N.Y.
Kenneth Strafford	Township of Varick, N.Y.
Robert Favraeu	Township of Ovid, N.Y.
James Terryberry	Township of Romulus, N.Y.
William Cool	Township of Varick, N.Y.

MR. KITTELL: Good afternoon. My name is Gary Kittell. I am the director of engineering at the Seneca Army Depot. I would like to welcome you to the fourth technical review committee meeting, which is aimed at monitoring and deciding the most effective clean up methods for the sites at Seneca Army Depot.

Colonel Cross, I believe, will be here. Some of you probably don't know him. But folks from Albany are meeting with local representatives at Willard over the economic future of the area and how Seneca Army Depot might play a part in that but I do expect him to come by.

I would like after I get done to have each person introduce themselves and announce what office they are with. Quite a few of the folks are regulars. I have seen them before. And then we will get on with the site briefings by the Corps of Engineers and then folks from Engineering Science will tell you what progress has been made as far as what actual work has been made in the field.

Mr. Miller, soon to depart, will talk

about the technical review committee charter and how we might get that finalized.

Randy will talk about the preliminary site characterization report and our information repository. We'll take questions and answers and then we will talk about the agenda for the next meeting.

So if each person would please identify themselves so that Trisha can get that down, I would appreciate it.

MR. HEALY: I am Kevin Healy from Army Corps of Engineers, Huntsville.

MR. DUCHESNEAU: Michael Duchesneau from Engineering Science in Boston.

MR. MARINNE: Paul Marinne (phonetic), Engineering Science in Boston.

MR. BATTAGLIA: I am Randy Battaglia. I am the project manager.

MR. ENROTH: Thomas Enroth, environmental engineer, Seneca Army Depot.

MR. KATZ: Steve Katz, EPA, Region II.

MS. STRUBLE: Carla Struble, EPA, Region II.

MR. ABSOLOM: I am Steve Absolom from the New York State DOH.

MR. CHEN: Marsden Chen.

MR. GUPTA: Kamal Gupta.

MR. DOMBROWSKI: Brian Dombrowski from Seneca County Health.

MS. SWEET: Mary Beth Sweet, Seneca Pure Waters.

MR. MILLER: Jim Miller from Seneca Army Depot.

MR. SCOTT: Robert Scott, State DEC.

MS. KANE: Joy Kane, U.S. Army Environmental Center.

MR. STAFFORD: Ken Stafford, supervisor of the Town of Varick.

MR. COOL: Bill Cool, committeeman for the Town of Varick.

MR. NOLL: I am not a representative. Joseph Noll (phonetic).

MS. RAFFERTY: Bonnie Rafferty, State Health Department, Bureau of Environmental Exposure.

MR. GARRETTY: Dan Garretty (phonetic) from the State Health Department. Also with the Bureau of Environmental Exposure Investigation.

MS. PEACHY: Mary Jane Peachy (phonetic)

with the Department of Environmental Conservation out of Avon.

MS. VERA: Linda Vera, DEC as a citizen participation specialist.

MR. KITTELL: Okay. Kevin Healy.

MR. HEALY: All right. As always I am going to give you an update. For the second meeting in a row we have representatives from Engineering Science here who will give you more in-depth. I am going to give you pretty much an administrative overview.

COMMITTEE MEMBER: Kevin, could you please move the tripod there? Thank you.

MR. HEALY: Is that better?

COMMITTEE MEMBER: Perfect.

MR. HEALY: First as always we are going to discuss the ash landfill and open burning grounds. Those are the RI/FS on the main portion of the work that's been done.

Last time we walked we had finished the Phase I and we were in the process of doing the contracting of the procurement action of the Phase II. That's now all been completed. We have completed all of the Phase II work at the OB grounds. The ash landfill was delayed

somewhat because of bad weather. We just recently -- actually as of this morning finished off the final well that was intended and from there on we will be sampling in the next few weeks. And then it will take about another four, five days to get the analytical results back. In approximately two months time we will be able to put it altogether or start putting it altogether in a report format with some conclusions and recommendations for completion. Then from there we will go ahead and put together a RI report along with a feasibility study. And we expect to be able to finalize both of those by the spring of '94. And following that the record of decision, which will lay out the recommendations for final remediation. And that will be expected or we should expect that one by late 1994. So we have a lot to look forward to in the next couple of months.

The next order of business as always is the solid waste management discussion. First will be the high priority areas of concerns; that is the areas that we have decided in the

past have the greatest potential for needing additional work. And this just for your benefit a list. Also I noticed in the packages that some of the sheets are a little messed up as far as order goes from what I have right here so bear with me. They are all in there. Just in a different order. The first one, these are the areas of high priority. And that is pretty much for your reference. All right. Here is an update on the work that is being done. We are performing site investigations at those 10 areas. The work plan revisions are coming close to a completion. We have had some regulatory review and we are now revising or making final revisions to work plans. We expect to have the work plan completely done by July of 1993. Following that we will actually be out in the field initiating the field work and we hope to have that initiated by September of '93. We need to finish off the work plan and I need to get my act together and get a contract in place so we can start. And we expect to be able to do that by September of '93. All right. I am

sorry. On the first 10 the contract has already been awarded. We need to modify it based on changes that were made by the regulators.

MR. KITTELL: May I?

MR. HEALY: Sure.

MR. KITTELL: We have taken a fair amount of pains with the work plans on these site investigations because of two reasons. If we go out and investigate one of these sites and as a result of the work done conclude that no more needs to be done, everyone has to be in agreement that the work plan was properly prepared and the work plan did show that nothing more needs to be done, there is no contamination. Also from the Army's point of view, we want to insure if something is found that it is valid and everybody agrees that there is something there that needs further study. There is tremendous expense involved in taking it to the steps beyond this initial site investigation.

MR. HEALY: Okay. All right. Now, we will talk about the second order of business.

And when it comes to site investigations, and that is the moderate priority sites, for your benefit there is a sheet in there that shows which sites those are. As far as updating the status of the work goes, the second 15 lag in the initial 10 by a couple of months. So we are right now in the process of preparing the work plan as opposed to the first where we are trying to work the plan up. We expect to complete the draft of the work plan by July of '93. Following that it is required that the regulatory folks review it and give us comments. We hope to revise the work plan and hope to have all the process done by the late summer of '93 and we hope to be able to initiate all the work sites by the fall of '93.

MR. KITTELL: There are funds available now slated for Seneca Army Depot to actually do this field work, too.

MR. HEALY: All right. And also I think it ended up in the front of your package but we have also included a glossary of terms as we were asked to do in the TRC. These are the main terms we use and an explanation

given and a definition given for your benefit and reference. All right. And then all of these -- I believe all of you have received a copy of the package. Take it home with you, have more of a chance to look at it. If it causes you to have any questions, then feel free to ask. And that is it for the administrative update.

I will now introduce Mr. Mike Duchesneau, who is from Engineering Science who is going to talk more in detail about the actual field work.

MR. DUCHESNEAU: What we have here are our maps that we prepared from the combination of both the Phase I and Phase II work that's been done to date. These are preliminary maps but yet I think I wanted to show you a good feel for where we stand and what we have done to date. I think the maps represent that as well as can be expected.

Just to provide an overview of the organization of the project here, we have the Corps of Engineers, the project manager here is identified as Mike Stahl. There has been a slight change recently in that Mike Stahl

has been replaced by Gary East but will still be involved in performing the same function as Mike Stahl was involved in. The technical manager is Kevin Healy, who has just spoken to you. We have Seneca Depot represented by Randy Battaglia and EPA Region II with Carla, also NYSDEC, New York State Department of Environmental Conservation, represented by Kamal, myself as project manager for Engineering Science and support staff for Drilling Laboratory and UXO.

MR. HEALY: UXO standing for unexploded ordinances.

MR. DUCHESNEAU: The approach at the OB grounds was a two prong approach involving explosives, heavy metals, semi-volatile as well as volatile as well as PCBs and nitrate and pH. We employed a screening program. The last time we spoke I talked in depth about what that program was; to screen the soil samples that we collected in order to then select a group which would go for more extensive complete analysis. As part of this project, we needed unexploded ordinance support so we maintain a high degree of

safety and our people don't get hurt. These areas are still active areas for OB OD. We performed electromagnetic surveys to screen the areas for any potential pits or drums of that nature. We also performed ground penetrating radar services to a follow-up of the EM surveys to better define any anomalies for the EM. Then we used an electromagnet.

MR. KITTELL: It is like a manual sweeper.

MR. DUCHESNEAU: It detects any manual anomaly in the grounds. It is more sophisticated than the type that you see people using on the beach. It provides a hard copy out-put of the results of the electromagnet waves penetrating the soils. The areas that we are interested in were the burn pads. The burn pads -- maybe I should just move over this way. How is that? The burn pads, which are nine in number, which is where formally munitions were burned on the ground; the berm surrounding these pads and each pad had a berm to prevent material from migrating away from the pad; the low lying hill, which was a hill that runs pretty much

the entire length of the site; ground water monitoring wells, which you see located periodically, to monitor the quality of the ground water and also the direction of flow which flows to Reeder Creek. Reeder Creek is located over in this direction. Also of interest here is the open detonation mound. This is an OB OD facility. Burning was done here. Open detonation is performed here. We have also collected surface soils back further in this area to identify the potential for -- as materials were released during the burning process what was the potential for that material to then be re-deposited on the surface further downwind; surface water and sediments in both Reeder Creek and on the site.

There are several wetlands identified here as W's, W-8, for example, W-13. Basically, these are manmade wetlands as a result of the movement of the earth to build the pads. We have sampled those wetlands and the biota in the streams and the on site wetland. The results of all this data have been compiled. We have sent the samples to

the lab. We have received them back. They have finished the data evaluation to evaluate the quality of the data we have collected.

The next step in the progress and the phase of the program that we are in is to perform a risk assessment, a containment and transport analysis and also followed by a risk assessment and that is right where we are right now. You see a much broader picture of the OB OD site here; the OB site and OD site, Reeder Creek and how it flows out to the road. This identifies the areas of the surface water samples that we have collected not only on site and in the adjacent area of Reeder Creek but also downstream from the site. I might add that these lines here are the New York State Cordinant (phonetic) System, the entire facility. All the samples that we have collected, all the wells that we have installed are all in reference to the New York State Cordinant (phonetic) System so that they are clearly identified in space here.

We have provided you this just to show

you where the network of monitoring wells are installed on the site. We have two layers of monitoring wells. We have a layer of monitoring wells that are located in the overburden, which is approximately 10 to 15 feet thick. It is essentially what is called glacial. Glacial is an unsorted mixture of sand, silt, gravel, all pretty much swished together. When the glacier rolled over this area you get dense, compacted material. So what we have is that layer of soil called the overburden overlying fractured bedrock, a zone of between two to five feet thick, weather bedrock, I should say, followed by shale. We have screened wells in the overburden. The majority of the wells are screened in the overburden. We also have a set of wells, couplets if you will, located adjacent to the overburden wells that are screened in this weather bedrock. We will have to identify whether or not vertical penetration of any potential contaminant has moved down into the weathered rock. What we have found to date is there is no difference between the pisametric (phonetic) head

between the wells that are screened in the weather bedrock and the wells that are screened in the overburden. Proving there is no vertical migration pathway, which is good news.

MR. CHEN: When you say pisametric (phonetic) --

MR. DUCHESNEAU: A pisametric (phonetic) head is the height of the evaluations of the well.

MR. CHEN: It is the same in all wells?

MR. DUCHESNEAU: The couplets and the screen of the overburden and the screen in the bedrock -- basically the water rises to the same level in the well implying that there is no difference in the head, pisametric (phonetic) head, that would cause water to want to flow vertically down. So what we are saying is water generally flows as a wall, if you will, towards Reeder Creek.

The Phase II program that we have processed involved sampling additional samples on the pad borings, additional soil sampling on the pads, on the grids -- grids being the areas in between the pads

designated as GB here on the map -- the berm excavations, which are excavations in the berm surrounding each of the pads, also the low lying hill and the burn kettle. The burn kettle was a new discovery that we hadn't identified in the first phase of work. It is basically identified as a small square in this area and apparently it was used many years ago to burn munitions, I guess. That is what we think.

MR. HEALY: Would you just explain why we went ahead with the Phase II? Why it was necessary?

MR. DUCHESNEAU: Phase II was a requirement. What we wanted to do in the Phase I is identify if there was potential for the presence of contaminants there and what those levels were and if there was a necessary step to go further into the investigation. From the Phase I information we looked at, it looked as though there was some heavy metals and some explosives in the soils and we wanted to better define the extent of some of those materials. Based on some geophysical analysis that we had

performed we identified grid spacings that were necessary and followed it up with the Phase II which was just, you know, a collection of additional samples to better define the X, Y areas of concern.

Surface water sediment sampling was performed. Same reason. We had some Phase I data, evaluated it and it appeared there was some potential for metals in the stream so we followed on to collect some additional samples to better define it.

A lot of these locations and the numbers were negotiated in the work plan with the regulatory folks. Ground water monitoring, we added additional wells based on comments from EPA and NYSDEC to better define radial flow and the potential for some of the down gradient locations from some of the pads that we were interested in knowing more about; if they had released any metals or explosives to the ground water.

Moving on to the ash landfill. We have completed all of the field work, other than sampling the ground water wells that we have installed. As of this morning, Paul and I

actually went and observed some of the wells and talked to the geologist who is installing the final well. That well is installed. It is just a bedrock well. So all of the wells have been installed. All of the soil samples that we are going to collect have been completed. The lab has all of the soils data. We have not sampled the ground water wells but that should be happening within a couple of weeks. At which time we will submit samples to the laboratory and within 35 to 40 days from that point we will receive the ground water samples and then begin the same process that we are beginning that we are at the OB grounds; that being contaminant interest and transport study and a risk assessment.

The areas to be investigated here are the non-combustible landfill over in this area, the ground water, surface water. And the areas that we are interested in are right in here. Again we have used screening tools, soil gas, geophysics, fracture trace analysis to locate some of the bedrock wells. We have also done geologic mapping to identify the

fractures to identify the best location to position our bedrock wells. The photo-lineament and the fracture trace analysis, as I mentioned, we performed to identify the location of the bedrock wells. We have -- we don't have them yet.

Maybe what I will do is back up and jump on the soil gas survey because that is what this overview here says or identifies. We performed soil gas in this area that we call the bend in the road. We have identified two areas that appear to have elevated VOC soil gas numbers. And based on the work that we have done and the follow-up bores that we did around the perimeters of these areas we think these two areas constitute the source of the ground water plume that is emanating towards off post. The technique that we used was a head space technique. We drove a split spoon into the sample, collected a spoon sample, removed the sample and put it in a jar and extracted a portion of the gas. And based on that information we were able to delineate the extent of these two areas. This is an identification of the borings that were

performed also, the test pits that were performed in the areas that we are interested in with the high VOC's and this ground water plume that we currently know to exist in that area. We have dashed these lines based on only the Phase I data because again we don't have Phase II data. We expect this plume to this line to probably bend a little bit more around this area in here.

MR. KITTELL: You did take quite a bit of -- or did do quite a bit of sampling off the post in areas that would be downstream of the direction of the plume, correct?

MR. DUCHESNEAU: Down in this area?

MR. KITTELL: Yes.

MR. DUCHESNEAU: We have installed wells right at the top of this plume to better define what the extent of this plume is. This plume has not reached any residences off post that we know and we have been sampling one in particular.

MR. KITTELL: I see some new faces here today. I think it is important that people know that this investigation is not strictly based on the property the Army owns. We have

permission and have been actively doing samples off the post so that we know the full extent of this plume.

COMMITTEE MEMBER: What's the concentration of the plume and what type of contaminant are you referring to?

MR. DUCHESNEAU: Good question. The concentration on the plume depends on where you are in the plume.

COMMITTEE MEMBER: What's the highest and lowest?

MR. DUCHESNEAU: The highest number we have to date is total volatiles 11.5 or 11.6 ppm and that is right around zero.

MR. KITTELL: Parts percent million?

MR. DUCHESNEAU: Right.

COMMITTEE MEMBER: Parts per billion?

MR. DUCHESNEAU: Million. The contaminants that we are finding are basically TCE, trichloroethylene, and the breakdown products of TCE; that being DCE and some vinyl chloride, which are known breakdown products of TCE.

MR. KITTELL: The dotted line at the end of the plume --

COMMITTEE MEMBER: Ten ppm.

COMMITTEE MEMBER: Neither one of them are soluble with water.

MR. DUCHESNEAU: Some of them are.

COMMITTEE MEMBER: Not very much.

MR. DUCHESNEAU: Not very much.

COMMITTEE MEMBER: What's the vapor pressure of your DCE?

MR. DUCHESNEAU: I don't know.

COMMITTEE MEMBER: Vinyl chloride is a polymer.

MR. DUCHESNEAU: This is not a polymer.

COMMITTEE MEMBER: In fact, it is one of the basic building blocks for your plastic industry because of its beautiful characteristic of leakages and it tends to link up with other items which become inert. same as your chlorine in that salt shaker. Once its leaked --

MR. DUCHESNEAU: We are not talking about that.

COMMITTEE MEMBER: We are talking about elements and toxic materials. There is a toxic state of an element and there is an inert material. I would like to have you

make that clear when you refer to these contaminants.

MR. DUCHESNEAU: Okay. We are talking about vinyl chloride. That is two -- we are talking about vinyl chloride and it is -- I don't know what the vapor pressure is off the top of my head. I know it is a very volatile compound. I believe at room temperature it is a gas. It is relatively low. Simply, TCE solubility is 1100 ppm. Vinyl chloride, I believe it is in the 900 ppm range. Generally in an environmental investigation you never find dissolved chlorinated solvents at those solubility limits. They are much, much less. Which is exactly what we are finding here. We are talking parts per billion. And only in the very center of the source area are we finding ppm, parts per million levels.

MR. HEALY: Paul, I believe you were obscured when you were pointing out the concentration down toward --

COMMITTEE MEMBER: At the toe, this lowest -- well, first east to the west is 104 parts per billion.

COMMITTEE MEMBER: Is that total?

MR. DUCHESNEAU: That is total. Most of that -- I happen to know these wells in particular but most of those 104 is DCE. There is very little TCE and there is no vinyl chloride. It is all DCE. Where you find the vinyl chloride and the TCE is more up in this area here. Apparently, as things migrate through here they are degraded to the point where all you see is DCE at this toe over here.

COMMITTEE MEMBER: I would like to make a comment. I grant you years ago we would have approved 1100 part per million. For your drug industry we used to have four grades. If I might go back, we used to have a commercial grade, a technical grade and an analytical grade and USP. Now, we have gone way up because of solid state devices and computers to go out to a gnat's eyebrow, which is beyond the commonsense of practicality I call it. You will find these things almost anywhere. If you look far enough, you would probably find some particles of gold because their

instrumentation is accurate today. We talk about toxic materials. I think we better confine ourselves to those areas that are really toxic.

MR. KITTELL: Sir, under this particular procedure that we are in we are not unilaterally allowed to decide what are or are not toxic levels. There are certain standards that have been established; health based standards for water purity based upon presumed long term exposure to these chemicals. It is a standard that we have to analyze and a standard that we have to clean up. As to part per billion, we have absolutely no choice to --

COMMITTEE MEMBER: I certainly can. Can I give you the perimeters on toxicity? They are arbitrary. Can I make another comment?

MR. KITTELL: The purpose of this discussion and in this group is to not rule upon what scientific basis was written into the laws that we have to confirm to. We can't change those. The Army is duty bound to follow and clean up to the standards that have been set in the law.

COMMITTEE MEMBER: I think you are going to go by recommendations from the group here. Let's not go on witch hunts. Let's be practical in what we tell them. You said there are funds available. How much?

MR. KITTELL: Funds, I believe, to do the site investigations. However, these gentlemen -- if you remember earlier in Mr. Duchesneau's opening statement -- will be preparing a risk analysis and a risk assessment. At that point they will go into the possible toxicity concentrations and possible receptors at each site. And I think at that point that would be the ideal time for the body to collectively debate the risk and cost associated with mitigating that risk.

COMMITTEE MEMBER: The question was brought up and I think you brought it up that there were funds available. Can you tell me the total of these funds?

MR. KITTELL: There is eleven million dollars.

COMMITTEE MEMBER: We have to burn it up.

MR. KITTELL: No, we don't. We are not at a stage where we are spending money for clean up and we are still defining the problems so that we can make an intelligent decision, informed decision on how much more money needs to be made or spent to effect clean up, if clean up is required.

COMMITTEE MEMBER: I don't disagree with you on going through all these technical terms and using forms not generally common knowledge to the general public. I think you can narrow it all down to three points: What is the problem? Is there a problem? What we do about it and how we do it? That is all there is to it.

MR. KITTELL: I agree.

COMMITTEE MEMBER: Are we in the first phase? Is there a problem?

MR. KITTELL: There certainly appears to be a problem.

COMMITTEE MEMBER: You are determining if there is a problem? Okay. Yes.

MR. DUCHESNEAU: I just might want to add a little bit about the bedrock investigation that we did seeing it is the

last item on the list here. We have drilled bedrock wells to, basically -- again as I was mentioning earlier -- to look at the potential for vertical migration at the site and we have completed those wells. We have four monitoring well clusters. The clusters include an overburden well, a shallow bedrock well and the competent bedrock. Call it zero -- for talking purposes at this point, zero data. The second rock well is screened from the zero to 20 feet and the third rock well is a deep rock well which is screened from 20 to some interval down to 100 feet. That interval is determined based on Packard tests that we performed. Packard tests are inflating two large balloons and pushing water between the two balloons to see how much water can be penetrated into the rock. We can determine the ability of the rock to transmit the water when we find the zone that has the highest ability to transmit the water. We have completed all that work also.

MR. HEALY: Let's just point out that the purpose for establishing what the permeability of the deeper rock is is to make

sure there is nothing in this higher aquifer which is contaminated that is migrating down to the deeper layer of water which is where the drinking water is coming from.

MR. DUCHESNEAU: Correct.

COMMITTEE MEMBER: I want to point out the location of those. We have got one up here in the downgrading and three -- excuse me -- four located down near the toe of the plume.

MR. DUCHESNEAU: That is basically all I had to discuss. We will know a little bit more about some of the numbers and where we stand as far as the potential and the risk analysis the next time we meet because we are in the process of doing that now. Thanks.

MR. MILLER: To keep this rather short since the TRC charter is something that we have gone over before before the committee and it has been distributed in the past to all members and we have had some comments on it and today we are planning to discuss the second round of comments on this charter which were received by -- which were received from the EPA and New York State DEC. Seneca

has incorporated all these comments into the charter that you have in your handout section. Actually section five shows -- spells out the changes that were made. The provisions that are being deleted or moved are represented by the slash line through them. The material that has been added into the charter is the shaded area. This is in section five. The comments that we received from NYSDEC and EPA are included in your packet as well. We could run through the changes real quickly just to simplify it.

Section five, page one. The first item that we see deleted there is number three on the bottom. Since the time -- since actually the first of the year -- since that time we have signed our federal facilities interagency agreement. This is just bringing things up to current tense. So we have substituted language in the charter that shows the IAG has been signed.

Changes, we have numerous provisions in the charter which relate to disclaimers. This TRC Charter is by no means to act in lieu of the IAG or take precedence over the

Interagency Agreement that we have signed. These disclaimers -- we have actually created an entire section on disclaimers. It is pretty straightforward. It is on page two on section five.

Over on page three we have just added a header which talks about TRC membership. That was inadvertently deleted from the last version. Everyone has looked at it. Shaded area, "TRC members." We have updated the charter with a current list of members as of January 21st.

Really straightforward changes here. We are not making much of a change on page four. The normal meeting place for the TRC meetings will be the NCO Club, which you all know is being remodeled at the current time. That is why we are here right now.

Page five. Minor revision as far as the role of the chair of the TRC Committee. Just some basic words missing there. We have replaced in "C" on page five attenders with attendees.

Page six. This is language that the EPA has recommended that we include and we have

worked with them on that language and it is word-for-word as they wish that it be presented in the charter.

Page seven. A very similar change for New York State DEC responsibilities.

I guess the next somewhat significant change is on page eight where we talk about responsibilities. The one change that occurs here at the request of New York State DEC is that we make it explicitly clear that the New York State Department of Health representative will be assisting the New York State DEC representative in proposing any State health standard requirement, criteria or limitation as legally applicable. The previous language did not state the New York State Department of Health role was more to assist the DEC. Rather than prior to this the language indicated they would be speaking as an equal to the DEC in working matters regarding the clean up activities.

Everything else is quite straightforward here. These are really minor changes. We are hoping to have this document signed in the near future. This is, like I say, the

second round of comments on that and we are on our fourth TRC meeting. I hope that we can rap this up and have it signed within the next meeting.

MR. CHEN: Jim, in the draft that you just read, page 10, third item. If you compare that to the final copy on page six, it needs to be changed. In the draft copy page 10, the one you just read, item number three on the top of the page.

MR. MILLER: Page 10 I have as the signatore section.

MR. CHEN: "The provision of the IAG shall control" or is that on some other page?

MR. MILLER: I am not sure I am following. What is wrong?

MR. CHEN: This is the draft. You got that number three there and on the final --

MR. MILLER: Marsden has pointed out that some of the changes were not carried over into the final charter. We have illustrated the changes in section five but it has not been carried over into the final charter which is enclosed in section six. That will be corrected. If anyone else notes

something that should be changed or takes objection to, definitely get in contact with us.

MR. KITTELL: You are planning to send it out for signature when?

MR. MILLER: We can say 30 days. Does that seem reasonable?

MR. KITTELL: Will it go out in 30 days?

MR. MILLER: If in 30 days there is no further comments, we can send it out for signature. If you feel that it should be shorter --

MR. CHEN: I have seen this thing three or four times. Why don't we cut it shorter to two weeks?

MR. KITTELL: Does anybody have any problem with sending this thing out in two weeks for finalizing the signatures? Okay.

MR. MILLER: Excellent. Give the floor over to Randy Battaglia. He's going to talk about PSCR's.

MR. BATTAGLIA: For our new faces here today we have in the Willard Town Hall an administrative record and information repository that is available there as a

public record. And a lot of these documents when finalized are kept in the public record in Willard.

Currently down in the record we have work plans that detail all the work that is going on at these two sites. One part of the process is a draft preliminary site characterization report, which is a draft report that the regulators wanted that summarized in a preliminary form all this information that we have at the ash landfill and open burning grounds.

We are going -- we normally do not include draft reports in a public record until they become finalized because some of the information in those reports is subject to change.

The draft preliminary site contracts report or PSCR will be included down there. All we have in there is the work plan of what is to be done at the sites. The preliminary site characterization report will be used and included is the remedial investigation report which will probably be done this winter sometime after we get the Phase II

information.

There will not be a final draft -- final preliminary site characterization report. That information is simply going to be used in the remedial investigation report.

Other documents included in the public record will be the remedial investigation report, which will include the risk assessment which discusses the relative health and environmental risks of contaminants that are found and assesses how much risk there is for a particular site; that is included in the RI report; and also feasibility studies with respect to what kind of remediation will be done and which is the most cost effective remediation for a site; and also for the other areas of concern documentation that no contaminants have been found if there happened to be a no action site. All that information when finalized will be included in that public record.

And prior to doing a remediation there will be a preliminary remedial action plan that is used also for public comment. That is the time when the public actually can make

formal comments as far as being addressed in the remediation.

The reason we are putting the preliminary site characterization report in draft form is because technically we don't have any technical data in the repository. I am just announcing that we will put it down there and it will be available for the ash landfill and other opening burning sites.

The other areas we are concerned with will have a site investigation report for each representative area. We will summarize what is found at those areas. And any of those other areas that become no action sites have to be included in a record of decision, either a separate document or that maybe tied onto a record decision that is made regarding the ash landfill or burning ground site. Of course, if any of the other areas of concern need any further investigation, we will go onto the entire remedial investigation feasibility process.

Okay. That is all. I just wanted to announce those documents are going to be included in there.

MR. KITTELL: We are back to questions and answers. Before we do that I would like to introduce Colonel Cross for those of you who haven't met him before. Would you like to make a comment?

COLONEL CROSS: Since when have I ever turned down an opportunity like that. First of all, I would like to apologize for being a little late. We had two meetings going on at the same time. One of them is the community meeting that was called by the Governor of New York, Mario Cuomo, to get the State and the local agencies and people together to talk about the reuse of the facilities that Seneca has that would be under utilized. That meeting is going on at Willard as we speak. I was down there for the first half. I will finish the second half down here.

I do want to make some comments. I think the TRC is an extremely important outreach vehicle of the environmental program at Seneca. I think one of the big concerns in many people's minds is, "well, you are leaving. What's going to happen?" We have heard all types of things. The first thing

is, Seneca is not going to close. Seneca has been downsized. We will have slightly over 300 people left here. We will still have three main missions between conventional ammunitions and storage and maintenance of industrial plant equipment.

I will be replaced by an O-5, a lieutenant colonel commander who has been -- his name his Lieutenant Colonel Roy Johnson. He's coming out of the ammunition division and 82nd Airborne Division. He should arrive toward the end of this month for the change in command on the 15th of July of this year.

What is interesting about the Army is that the Army's commitment to the environment transcends whoever sits in the commander's position. The Army's commitment to environmental stewardship, appliance, restoration and preservation and conservation remains unchanged. When I leave, somebody else comes in. You will have somebody better to look at when you come back the next time; that will be the SEAD commanding officer, which means that Lieutenant Colonel Johnson will be the head.

What's been the impact of this? When we went into the RI/FS at the beginning -- keep in mind that we are talking about over 900 civilian positions shrinking down to about 300 positions -- we originally had an environmental staff of six individuals. We retained five of those six during the cut. So we cut the rest of the Depot by two-thirds and we only cut the environmental staff by one-sixth. And, of course, part of the rationale for that is the special weapons operation, the industrial plant equipment operations and generators and a lot of the hazardous waste and not so much the restore and restoration side of it but the daily operations and conservation. We are not generating as much as we used to. So the environmental staff was maintained. That happens to be a pet favorite of mine. I think everybody understands that a commander at an installation is legally and personally liable should they not support an environmental program. I don't know if everybody realizes that but that is what the lesson of Aberdeen was. Quite frankly, there

has been tremendous interest in this. My advice to my successor will be to become personally involved. It will be important for himself, the County of Seneca and the Depot.

The reports after the RI/FS remains unchanged. We have signed the IAG. It is operational for most intents and purposes. What you see will not show any significant change at all. Unless you drive on the north side of the Depot and you see the grass is 12, 16 inches higher. We are no longer mowing. That is the intent of what will be visible to you.

I am really gratified for the way the TRC has matured from the first meeting that we had in the NCO Club and the participation for all the players. I think it bodes well for doing the progress right. When you get many people looking at it from many different respectives, you generally get better solutions. I will shut up with that.

MR. KITTELL: Thank you very much. Questions and answers?

COMMITTEE MEMBER: It is Dick Durst from

Cornell Analytical Labs.

COLONEL CROSS: He was late for the same reason.

COMMITTEE MEMBER: Colonel Cross had mentioned the fact how little of the Depot actually will be available for community use in terms of the land area and so on. I am just curious -- since the mission of ammunitions storage will continue -- how much of the burning of old ammunitions will go on and what impact will this have on the ongoing clearing of the facility as far as remediation efforts?

MR. KITTELL: The facility that we are clearing is more a campus like setting where most of the soldiers live in the North Depot that is becoming available. It is about 165 acres out of the 11,000.

As far as munition destruction, the place where we actually blow up ammunition versus the place where we burn it, which is located at the site but not on top of each other, there will be burning continuing on in the future. But the burning that we are doing is in accordance with RCRA. We

constructed a steel burning tray about as wide as this table and 40 feet long. The burning is conducted in a tray. The residue is vacuumed up. You don't have this problem about metals to be discovered by people 20 years later. There might be scheduling conflicts with the clean up in the burn pads if clean up is indicated but we are not using the burn pads actively now.

As far as the demolition goes, we have applied for a continued operating permit as a hazardous waste disposal site. Because when you blow up a bomb you are disposing of a hazardous waste. That will have to be operated and managed in that way. Under the RCRA law when you vacate the site you are bound to clean up the site.

COMMITTEE MEMBER: Do you have specifications on the air pollution on those sites?

MR. KITTELL: We have a permit from the State of New York to open burn. There are regulations associated with that. Their studies have shown where we have been able to demonstrate that there is very little --

although I am not going to say there is none -- there is very, very little pollution that comes off. It is so energetic. And most of the reaction just results in energy.

As far as our final operating permit from RCRA, there are air model studies that have to be done. Stop me if I wander off here, folks. They demand from us air modeling standards and also modeling that says how much actual weight of pollutant goes up in the air when you do certain types of operations. Our final operating permit when it is granted will probably also regulate frequency and that sort of thing for air pollution considerations.

MR. BATTAGLIA: One of the concerns that the regional air people have in Avon was submissions of metals, heavy metals. At that time we did a review of the type of propellants that were open burning for disposal. It did not have the poundage of metals in them that they were concerned with. I presume that the heavy metals that we have contamination in or around the burn pads was from past burning. The burning of bulk

propellants which send a rocket out of a tank does not have the concentration of heavy metals in the propellants itself. There maybe a grain in the initiating part that initially ignites.

They were concerned -- I think this goes back to '88 when we started looking and finding information of what kind of chemicals is in the propellants for the regional air people. As Gary said, it is part of our permit application. To get a final we have to do a risk assessment where they monitor the type of air emissions and what type of health risks from those emissions.

One of the things that we have been talking about with the DEC just lately is what kind of alternatives there are for opening burn detonation. The Army is researching alternatives, such as recycling the propellant. I personally don't know how far along the Army is in doing that. I think feasibly -- I don't know how far they are in developing those processes. One of the things about the open burning, open detonation is the only way to -- we have

anti-tank rockets. They are not made to be taken apart and have the explosive destroyed some other way. The only thing you can do is detonate.

The Army has done studies at open burning and open detonation grounds across the country. In general they found little can be done. They have found some contamination at some burning areas. Quite commonly you find contamination at the burning areas.

Other things like fuses or bombs or artillery shells, the only way -- they weren't designed to be taken apart. I have heard that the Army is researching and doing things in developing new processes so they can be disposed of in other ways. I have no idea how far along the Army is in getting those things changed over. The trouble is everything that was in storage wasn't designed that way. There are cases whereby in routine inspections the quality assurance people will find munitions that might be corroded and so forth. And the only safe way to get rid of it is to take it to the demo

grounds and detonate it.

We have identified all the percentage of the chemicals in those ammunitions. That is being reviewed by the DEC for that part of the permit to be allowed to do that.

COLONEL CROSS: There are locations and there are processes to recycle ammunitions. Some of the materials -- some of them are so energetic you don't want to bother with them because it is more hazardous to do it. The problem with those is depending upon what kind of process you use you may end up -- in many cases you end up with more hazardous fluid streams coming out of the items rather than taking them out to a ground area where it doesn't migrate and you can pull it up later. That is the biggest problem they are having. It turns out it generates more hazardous waste than the traditional methods.

COMMITTEE MEMBER: I have a question for you. I am with the State DEC in the permit process. I am concerned about how long it takes to get through the current process and get a permit that relates to the opening burn area and open demo area. I realize the State

takes a long time. We are at fault. We are strict in the process. But when you mentioned cutting the staff from six to five, is there plans to decrease staff or is this cut going to delay the process further? That is what my concern would be.

MR. KITTELL: That is an excellent question. Let me tell you how we have tried to manage our way through that difficulty. We started out, maybe naively, when RCRA was started thinking we would be able to write our permits. The Army had all best intentions. They had blanket contracts that wrote permits for multiple sites across the country. We were caught up in a process where the environmental programs in various States matured. Parts of those programs were transferred over to the State's control or the States had their own regulations, own way of doing things. We seemed to be caught up -- not that there was any negative intent. We seemed to be caught up in our inability to make or hit a moving target as it appeared that the requirements changed. So we went through a series of many submissions of our

RCRA permit to the DEC folks. The different folks that were here. We thought we were getting close in the process and then it appeared as if things had reversed.

What we did at that point was we got together with the people -- the permit administrators at that time in Albany and explained our dilemma. They explained our dilemma, too. Because they thought we weren't doing a very good job in submitting the permits. We offered to hire the expertise that it takes. We were able to get the same folks -- a large firm that's represented here today -- to help us with the permit process. We were able to bring the administrative and technological capability together and put together a permit and pursue it.

I would say at this point right now with their assistance we are looking for action on the State's side to bring this thing to closure before we end up in another situation where human nature makes it difficult for us to perceive. There seems to be a fair amount of turnover in staffing and project managers

in all offices. And when a new person comes to the job and looks over something as complex as that, I know I would like to go back and look at it from square one. Human nature prevents progress. We are looking for some activity soon in getting an operating permit for our part B. We did the very same thing with the part X permit, which deals with the demo grounds. We did the same thing with the hazardous waste incinerator. This is the popping plant for the de-activation for small arms; where we shoot bullets off in a confined furnace. Not what is sometimes thought of as a hazardous waste incinerator. It is classified like that under the law. We do not have the staff but we have hired a consulting staff to make up for the loss. We would like to see things move along now.

COLONEL CROSS: I think the other side is certainly the TRC's principles, the mediation efforts. The other side of this is the day-to-day operations. We have to prevent future problems like our predecessor left us years ago and years ago. And with the reduction in two very major missions you

just reduce the amount of time and people that you need to track all of those day-to-day type things. That is the other side.

COMMITTEE MEMBER: I hope it is not cut to four or three.

COLONEL CROSS: It is not going below five while I am here, I will tell you that.

COMMITTEE MEMBER: Gary, first of all, I would like to compliment Colonel Cross for his comments on the downsizing of the base instead of closing. That is a very significant statement in my mind. Number two, we are all here because we were all interested in the environment. Some are just private tax payers, some with a pecuniary interest. I think we are all interested in the environment and we would like to keep it in perspective. We would not want Seneca Army Depot to become a Love Canal. I could give you an hour in verse on that but I won't go into that.

Part per billion. Now, an article published last July on the Depot said cancer causing substances at Depot. Well, they

listed five parts per million as being the maximum toxic level and 10 part per billion were found. Let me tell you what it meant. Let me give you what a part per billion is. If you took one gallon of this toxic material, it means one gallon in a billion gallons. It would mean one gallon in twenty-three million eight hundred and nine thousand five hundred and twenty-three barrels of the stuff. Let's go a little farther. Each barrel by the way is a 42 gallon barrel. Suppose now we took that one part and broke it down to a drop. We can take that drop and break it down to 100 pieces. It would mean that we would have sixteen one-hundredths of a drop of material in every 42 gallon barrel. And I doubt that there is anybody in this room can clean a barrel to that purity and stake his life on it. So we talk about 100 parts per billion or 10 parts per billion. We are talking about numbers that are beyond comprehension to the general public and beyond toxicity.

I will tell you this. Whoever took these measurements, if you go out here and

take any booze bottle out there, you will find ketones and fuel oils. I don't know human toxicity but these are ingested everyday but we don't hold a big program and spend eleven billion dollars on a search to find out if the public is going to be harmed. Enough said. I quit.

MR. KITTELL: I appreciate your comments. I think I am going to build on them at the risk of boring everyone. You had the same problem when I started in this business. When I tried to, I was able finally to get parts per billion. Our water reservoir, which is probably four times the size of this building, holds 100,000 gallons of water. And I was able to conclude after a little hen scratching one tear drop in that reservoir is a part per billion.

Let's talk about toxicity and long term health effect. Think, if you will, how big a cigar or cigarette you would have to smoke to kill you there on the spot. However, science has proven that long term ingestion from smoke or smoking is a health hazard. And I think that is the problem that we are in here

now. I think what you are talking about -- some of the chemicals that we are talking about takes a large dose of that particular chemical to have an immediate toxic effect on the human body. But it is unclear in many cases with these chemicals what happens to the human body if you ingest them in water day in day out for a lifetime. I think that is where some of the confusion comes up with. Why we are worrying about parts per billion? And why we are chasing after a problem like this?

COMMITTEE MEMBER: Gary, let me add another point. I spent a good part of my life in industry working with trichloroethy, acetone and some of the other items that were mentioned in the newspaper article. I appreciate the safety. There is no security on it.

First of all, let's not come to the conclusion we are going to live forever. Number two, on the heavy metal end of it we would have to shut down the State of Illinois. The people have dug wells there and the lead deposits are so heavy and they

are drinking this water and they have been all their life. If we were going to go and take contamination levels of it, we would find cities full of it. Let's go farther south, Dakota, their Badlands. I thought they were Badlands because of the indians and the cowboys. They are Badlands because of the chemical deposits. People live there and cows eat this grass and we use the wheat from there and whatnot. You know what it will do to your eyes and your nails and all of that? Gary, you don't have to smoke as many cigarettes either.

MR. CHEN: Sir, if I could just try to tell you something. I am from the State of New York Conservation Office. I hear what you are saying. I cannot --

COMMITTEE MEMBER: I agree with you.

MR. CHEN: It is not a matter of containing. I think I hear you saying it is 104 parts per billion. There is a farm house further down. Is that farmer willing to drink that 104 parts per billion? I would say that one in a million persons is willing to drink that water. Maybe I am and you are

but the rest of us here are not. If we ignore that concentration of water, we are in fact saying to the United States this is a bunch of baloney. We cannot do that under the system that we live. And a lot of these concerns, as Gary said earlier, are based on health studies. A lot of the health studies are very conservative and say you have to drink so many quarts of water for your lifetime.

MR. KITTELL: We need to move this along. I will say, as long as you brought up the farm house, we are -- for those of you who are new here. Since we have found this problem we are testing the water at the farm house every quarter and sending those tests to all the people involved that have lived there. We know we are not effecting those folks at this time.

I also want to reiterate this process. When we go through it, it is a risk based process. There will be a risk analysis done of possibly the people that can be effected and that sort of thing. There is an economic part to that. That is how final remediation

will be determined publicly and risk and cost based.

MR. HEALY: I would just like to point out at the very first meeting I laid out the program that we are doing, the RI/FS process, what that is about. And just everything we are doing is legally mandated, the whole process; what we test to, what we test for and how we go about doing everything is legally mandated. So the Army is doing what the Army has been directed to do. It would be nice to cut down cost. It might be nice to cut down the scope of the cost but we have the EPA and NYSDEC telling us that you will do it this way.

MR. KITTELL: As Marsden pointed out, we are doing what the laws tell us.

We need to set another date. We have been developing these agendas ourselves. It would be nice to get a little feedback on the adequacy of the presentations. We would certainly like any possible agenda topics mailed to us within the -- we take them within a week or two of the next meeting. Of course, if they come late, that limits our

ability to address what will be discussed. So with that said how about a date?

COMMITTEE MEMBER: How about early October because that is the end of our fiscal year.

MR. KITTELL: It has been proposed that the next meeting be October. The entire government fiscal year ends in September. October would be a good time for you to talk about what we are able to get obligated for the end of the fiscal year and also to talk about what the '94 budget year holds. It would, I think, give the folks from Boston and Huntsville quite a bit to talk about, you think?

MR. HEALY: Yes.

MR. DUCHESNEAU: Early October?

MR. KITTELL: Yes. We may also at that time know a little bit more about the proposal that we have to perhaps start removing some of those materials at the ash landfill where we know we don't need to study further. So October. Would you like to pick a day and time?

COMMITTEE MEMBER: Second Wednesday.

How does that sound? I don't know the date.

MR. CHEN: The second Wednesday is the 13, October.

COMMITTEE MEMBER: We had tried to stay to Thursdays because there are things that go on at the Depot.

MR. KITTELL: It is Wednesday, 13, October. We maybe back in the NCO Club; and if not, we will be down here. I guess that is a rap.

* * *

C E R T I F I C A T I O N

I, Patricia Ann Nelk, hereby certify that I reported in stenotype shorthand the proceedings had on the 9th day of June, 1993, in the matter of the Technical Review Committee.

And that the foregoing transcript, herewith numbered pages 2 through 60, is a true, accurate and correct record of those stenotype shorthand notes to the best of my ability.

Patricia A. Nelk

Patricia Ann Nelk

DATED AT: Rochester, New York

this 3rd day of July, 1993.

THE FIFTH MEETING OF THE SENECA ARMY DEPOT
TECHNICAL REVIEW MEETING

REPORTED BY: PATRICIA A. NELK

MR. ABSOLOM: Okay. I think everybody is here that is going to make it this afternoon. To start with I would like to introduce Lieutenant Colonel Roy Johnson and Depot Commander.

LTC JOHNSON: I met a lot of you all. I haven't met everyone here. I look forward to meeting every one of you today. I am a new commander. My name is Roy Johnson. I am very much interested in this meeting and follow-up meetings. Commanders are personally liable under the law for environmental consequences during their tenure of command. I sent a note to Steve the other day in preparation. I think I said, "Steve, what are we doing so that my daughter's college education is not donated to the EPA?" So commanders do have that responsibility. I take it very seriously.

I look forward to continuing on in the traditions of previous commanders to do the right things and insure that we don't have any environmental problems at Seneca Army Depot Activity.

At this time what I would like to do is

turn it back over to Steve for introductions and continue with the agenda. Thank you very much.

MR. ABSOLOM: The next thing I would like to do is because Colonel Johnson is new I would like everyone to go around the table and introduce yourself so he gets a feel for who you are and who you are with.

MR. DURST: Dick Durst, director of the Cornell Analytical Labs and resident of Varick.

MR. STAFFORD: Ken Stafford, supervisor of the Town of Varick.

MR. HODDINOTF: Keith Hoddinotf, Office of the Surgeon General.

MR. SCOTT: Robert Scott, New York State Department of Environmental Conservation, administrator in Avon, responsible for this area.

MR. MEHTA: Manmohan Mehta, New York State DEC in Avon, same office.

MR. GUPTA: Kamal Gupta, New York State Department of Environmental Conservation, main office.

MS. RAFFERTY: Lani Rafferty from State

Department of Health.

MR. GERAGHTY: Dan Geraghty. I am also with the State Health Department.

MR. WHITAKER: My name is Gary Whitaker. I am a public affairs officer at Seneca Army Depot.

MR. ENROTH: Thomas Enroth, assistant project manager.

MS. STRUBLE: Carla Struble. U.S. Environmental Protection Agency. I am a project manager.

LTC JOHNSON: Pleased to have you.

MS. STRUBLE: Likewise.

MS. BUCHI: Kathleen Buchi, U.S. Army Environmental Center.

MR. BATTAGLIA: Randy Battaglia, Seneca Army Depot, project manager.

CPT. RAIMONDO: I am Captain Tony Raimondo, legal officer, Seneca Army Depot Activity.

MR. ABSOLOM: I am Steve, Chief of the Public Works at Seneca Army Depot.

MR. HEALY: Kevin Healy, lead engineer for the work that is being done on Seneca Army from the Huntsville Division.

MR. CHAPLICK: Jim Chaplick. We are the contractors that are doing most of the investigatory work at Seneca Army Depot.

MR. DUCHESNEAU: Mike Duchesneau, project manager. I work for Engineering Science. As Jim said, we are doing the remedial work.

MR. ABSOLOM: Thank you very much. We do have -- as in the past, we have a stenographer here. I ask that you speak up so that she can hear you. She'll try and transcribe verbatim what we say.

Next we are going to have the agenda. It is going out. I hope everybody got a copy of it. We are going to run it pretty much like we have in the past, the project status, on-site status. Today we are going to just go right into questions and answers. And from there we will conclude, set up our meeting for our next TRC meeting.

Before we get started with our first presenter I would like to go over a couple of other things. First from the last meeting, Mr. Kittell has since departed. He went to work for the SUNY system at the medical

center in Syracuse. I will now be part of the running operations. There should not be any change in staff activity at Seneca. Our qualified staff of Randy and Tom will still be there and still be doing things for us.

The other thing I want to talk about a little bit is, is that you read a lot in the paper about downsizing the Department of Defense. To date we have been very fortunate. It appears that the staff support we get from the Huntsville Division and from AEH, the Army Environmental Center, is going to remain in tact so we shouldn't see any changes for a while at least at Seneca. So for me that is good news to have stayed consistent with the same players throughout.

With that I would like to turn it over to Kevin Healy, our first presenter, to give us project status.

MR. HEALY: Good afternoon. This is the Fifth Meeting of the TRC. As always I am going to give an update -- a brief update of all the activity that is going on. And we normally start with a discussion of the two largest sites, which is the ash landfill and

the open burning grounds. Both of those are remedial investigation and feasibility study sites. Last time we met we were in the process of arranging to have the second phase of field work at both sites done. Since that time all the arrangements were completed. The Phase II field work itself is complete and we are presently in the process of preparing the remedial investigation and feasibility study reports. Remedial investigation reports are on their way to the regulatory agencies for review. The Army has taken a look at them. We are pleased at what we have seen. So now the next step will progress, as I said, to the regulatory reports. The reports will lag by about two months. We expect to see one of them in November and the second one will be in the January time frame. We have not seen any slippage in the schedule. We still expect the record of decision to be done in early 1995.

Next topic is the work that we are doing at the solid waste management units. And as always we will discuss first the high

priority areas of concern. We are in the process of performing site investigations. The work plans have been completed and that was as of earlier this month the review was complete. They have been accepted and approved. The field work was initiated just within the last two to three weeks. And we still expect the final conclusions to be drawn as of August of 1994. Everything appears to be on schedule as far as those investigations are concerned.

MR. DURST: Could I ask what the field work involves?

MR. HEALY: Yes. Field work involves -- depending upon what sight you are referring to it involves monitoring wells, surface soil sampling, deep boring sampling and the things that we are analyzing for mostly are the volatile organics and heavy metals with explosives in some areas and the rest will depend on which site you are talking about but predominantly VOC's and heavy metals.

MR. DURST: Thank you.

MR. HEALY: All right. And then the last topic as always is what Seneca is

referring to as the moderate priority areas. And this slide is very similar to the one I just showed you. The schedules are proceeding almost concurrently, not quite. There is a month to a little bit less of a month in between the investigations -- I am sorry -- in between the investigations for the moderate ones and the higher priority investigations. That slide is basically the same. The schedule is basically the same. And final conclusions are expected by August of '94.

As a result of those reports and the final conclusions, depending on what they say, if there is any additional work that is required then we will follow on with the full remedial investigation starting in fiscal year 1995. Okay.

And that is a brief administrative update. Everything seems to be moving very nicely. And for a little bit more detail I will introduce, as always, Mr. Mike Duchesneau from Engineering Science to give us a more detailed look of the work that's been done.

MR. DUCHESNEAU: Thanks, Kevin. What I am going to show you today is some of the information that we have put together for the RI/FS report. But to begin with just a brief outline of who the players are. I think we have already discussed most of them. The only thing of note here is Michael Stahl has been changed to Gary East as the project manager in Huntsville.

Just a brief overview. This is the open burning ground which I will be discussing first. And the open burning ground was basically nine pads. You can see here where open burning of munitions and ordnances was performed in the 40's, 50's and 60's. That process has been since abandoned. Open burning has been performed in a steel tray in this area. The focus of our investigation has on been on the residue that has remained on these pads. We have focused our investigation on the berms which surround the pads, the pads themselves and also the areas in between the pads as well as some of the drainage ditches that you can see here that drain the surface water to Reeder Creek,

which is located in this area. We have put borings and monitoring wells on both the pads and the grid borings around the pads and investigated the presence for heavy metals, explosives, semi-volatile organics which include polynucolites (phonetic), carbons and the like.

Just to show you what the geology is my next slide is a cross section. That cross section is drawn from the information that we have derived from our boring which basically runs along cross section AA. I don't have BB with me but it is essentially the same. And what you see is what we have known all along but have confirmed quite a bit better at this point and that is there is obviously some migration. You see the burn pads built up over a mantle of weathered till or till which is over some weathered shale which is the bedrock area followed by some competent shale in this area. We have installed monitoring wells to evaluate potential for vertical migration in the groundwater system so we have screened our wells in both the weathered shale and in the overburden till to evaluate

whether or not there is driving forces that could be pushing material, i.e. groundwater, into the bedrock which was a concern for us.

This is a groundwater flow map. This was drawn in April. As we suspected, groundwater movement is towards Reeder Creek; the discharge point for the groundwater. A particular note here is the location of a groundwater divide; in other words, this is a high spot where groundwater will move this way and some groundwater will move that way.

Another groundwater flow map to just identify how the groundwater flows at another time of the year. This was in January. The other one was in April. Basically you see the same thing. Again flow towards Reeder Creek as you would expect following the contours of the ground. Not to be unexpected.

The sum effort of what we have done is to come up with a risk number and the risk is evaluated in two phases. One phase is carcinogenic and the other non-carcinogenic effect. We follow EPA guidelines and establish receptor populations and establish

exposure groups. And what you see here is the sum of basically section six in our report, which is the risk assessment. The key numbers to look at are the numbers -- the bottom line numbers here. EPA for carcinogenic risk has a target value of one times ten to minus fourth and one times ten to minus six. And one increase of cancer in a population of 100,000 people. And one increase of cancer in a population of 1,000,000 people. That is ten to the minus sixth. Loosely translated that is what these numbers mean. If you are less than ten to minus fourth, then there is a problem. For NYSDEC the number that you require for carcinogenic is one ten to minus six. The number you are shooting for is lower. In terms of acceptability it is the one times ten to the minus six. That is the smaller of the two numbers.

As you can see, when we look at our current on-site workers we evaluated inhalation, ingestion of on-site soils and dermal contact to on-site soils. And we have one times ten to the five which is greater

than to the sixth number; implying that some type of remedial action is required.

We looked at current off site residents that live near the Depot. Their exposure routes were ingestion of surface water while swimming, dermal contact to surface water while swimming and ingestion of sediment while swimming and dermal contact to sediment while swimming. Someone would be wading or swimming in Reeder Creek. However unlikely that maybe we thought that would be the likely exposure route. You see the system two times ten to the minus sixth. We are still above that.

The other risk that we evaluated was future residential. In other words, if the open burning ground was developed into a residential area and we combined all of them. Actually all of the exposure routes that you have seen here as well as added ingestion of groundwater and dermal contact to groundwater say during showering or bathing because we have added all the exposures. This number is a higher number than the other two. It is four times four to the minus fifth. Again

implying needs remedial action. The key number there is one. So any number greater than one is a problem.

We have -- for the future on-site considerations we have a one point two, which there is a need to evaluate some type of remedial action.

To provide you with a little bit more detail of exactly how the work we have done is broken down I am going to show you some of the data that we have collected from the burn pads as well as later on some of the grid borings that we did that identifies some of the areas that we are concerned with. What we have provided you here is a breakdown of pad, in this case pad D, which shows the Level II lead samples that we did. And now Level II refers to our data quality level. These were screening results that we did. In other words, we went to the -- BE refers to berm excavation, which are these locales surrounding each of the burn pads. We collected soils from specific spots and sent them to the lab. Based on the Level II screening we selected the comparable soil

sample from that location and did a much more rigorous and thorough Level IV analysis. The Level IV analysis was following New York State Contract Lab Program Analytical Services Protocols, which is a very detailed QA QC process. And we get a large shipment of information including surrogate spikes, matrix recovery, blanks and all that kind of stuff. But the interesting point here I would like to make is that when you look at the Level II data and the Level IV data we have identified lead as an indicator perimeter. We find a very good correlation. For example, lead for Level II was twelve thousand PPM. When we go down further in the berm excavation area, we find another instance. The lead Level II screening data showed 8,100 and the Level IV more rigorous analysis produced information that said it was ninety thousand three hundred and eighty. Again I think there is a very good correlation between the two. This pad was a small pad and we have only performed one soil boring. Again we screened the soil that we collected as we went down into the earth.

And what you see here are the Level II data points based on the Level II screening which we selected one sample for the more rigorous Level IV analysis. The relationship here is quite good. Twelve thousand four hundred for lead in subsurface soil and sixteen thousand for the Level IV. We feel that we were able to accomplish quite a bit in this type of program, collect a lot of information at a cost effective approach.

Just another pad to show you more instances of the information that we have collected. I am focusing here on heavy metals. From our risk analysis it appears evident to us that heavy metals is the main culprit that we would like to focus our efforts on. Again here lead was for the Level II one thousand thirty; lead here is twelve hundred sixty. And again as you see our boring in the pad followed by comparable numbers.

Another point I would like to mention here is although it is not shown that well in this one generally as we go deeper in the boring on the pad we find less and less heavy

metals, which leads us to the conclusion most of the problems associated with the berm pads are at the surface. And also in the berms if we were going to deal with some type of remedial approach obviously we are going to deal with the surface of the soils and that is where quite a bit of the material is located.

Just again to show you more or less the relationships between the Level II and the Level IV but here the surface pad is in barium. We didn't do a Level II. The surface of the pad for lead and barium are fifteen sixty-five and two thousand three hundred and twenty respectively. As we get further down, it is 178 and 60. So as you go deeper and deeper in the hole, the concentrations get less and less. Pretty much as you would expect because the way the burns were done they were done at the surface. They weren't necessarily done underground and buried.

This is one of the moderate pads -- moderately sized pads. We have several borings that were performed on the pads.

Just to highlight some of the numbers here, as you can see for the Level II we start at pad boring one, which is right here. We go from a lead value at the surface of fourteen thousand at the two to four foot depth. We are talking two thousand at the four to six. It is five hundred and ninety at the six to eight. It is hundred and thirty at the deep spot. That trend is repeated over and over in a lot of these pads. Once again I think we are seeing a gradual decrease in gradual depth.

MR. HEALY: Those units are parts per million?

MR. DUCHESNEAU: It is parts per million That is a good point. We actually did -- we did upwards to 18 soil samples in the area and calculated statistically what the site background would be. It is pretty much what we have expected from what we have seen on the literature. It is 30 parts per million for lead.

Just another pad again. Not to belabor this point but generally you find a decrease. In this case it is not as dramatic. This is

berm excavation over here. Again you can see that is two to four and it is two thousand and then at the six to eight it is sixteen.

We were also quite interested in not only what was happening on the pads but what was happening around the pads. Our grid sample program that we have established included borings and samples collected from areas around the pads. And the picture we see here is a very interesting picture. This is lead in surface soils in the zero to two foot depth. It is again in milligrams per kilogram or parts per million. What we are seeing here is something we suspected would be the case and, in fact, is the case. And generally in the higher -- or the higher evaluation areas we don't really see too much of a problem here. The minimum contour we are showing is 500 PPM, which is one of the numbers that we have been -- the range of numbers that we have been thinking about. As far as remediation goes, EPA guidance talks about 500 to 1,000 PPM as kind of a ballpark area where you start looking at doing something. So we cut our contour off at 500

and we have it going up to the highest one which is I think -- I don't know -- seven thousand, is it? Seven thousand I believe. But the interesting point here is that the samples that we have found that had lead at the surface are all localized in the low areas. That seems to make some sense from the standpoint of our understanding of the site and the materials that were at the surface. You get a heavy rainstorm or some type of surface water and even those materials generally move as sediment particles down in the lower areas where they settle into the pond followed by the water and would eventually drain off into Reeder Creek. But that is what we are finding, heavy metals in the low areas coincident with the low ground elevation. These are elevated roads that raise and that act as quite a natural sedimentation basin.

What we are seeing here is copper. Again it is surface soils in parts per million. Consistent picture in the same general areas. Zinc, once again basically in the same areas. Although we are finding a

little bit of elevated numbers over here.

The other thing I would like to point out, too, when we did a statistical analysis of our soils on-site for different metals and our background soils that we collected we found that the metals that were statistically different on-site versus off site are lead, copper, zinc and barium. So we were able to show statistically that those four metals have concentrations greater at the 95 conference interval. That is why I am showing you all three of the four. But I think you get the idea.

I would like to move on to the ash landfill. This is the generalized map that we produced for the ash landfill. Now, this report is due out next week. So what I am showing you here is some preliminary drawings. The well locations are -- these are true well locations. However, the plume map that I am showing you is the old map that I showed you last time. If you recall, we had identified an area which we called the bend in the road over in this area here that we were concerned with. A lot of our Phase

II work at the ash landfill was to focus on defining that area better, which is why we have sort of dashed this line here because we believe -- and, in fact, it does -- the plume actually extends out a little bit further that way.

I guess the good news is that we have done a fairly extensive bedrock investigation program. The results of that program indicate that bedrock has not been impacted with chlorinated organics which I think is a very important point to mention. So what we are looking at here is some groundwater flow again following essentially the gradient of the land heading to the fenced property. In this area we call the bend in the road it is our area of concern and we placed several wells including well clusters, which you see three wells located here. One is in the overburden, in the till, in the upper portion of the bedrock. And another one is in the deep portion of the bedrock. The two bedrock wells here, which is pretty much down gradient in the bend in the road, are clean. The well -- the overburden well here is

slightly contaminated with TCE. So we want to, you know, draw our plume map so we can encompass that.

As part of our Phase II work, we went back out and did quite a bit of additional soil gas work to better define the extent of that area of the bend in the road. Here is the bend in the road. It is kind of a blown up picture of what we were just looking at. Overlapped here are some of our Phase I soil gas contours which are generally shown here and a couple of blobs over here. What we did is we did kind of a star pattern. We started off in an area that we suspect was the ground zero or the middle point and worked out in lines collecting soil samples and produced head space analysis. We would take a soil sample out of the split spoon sample, put it in a jar with some field gas chromatography and analyzed the head space of those gases and got an idea of how far that area of impact extended. We followed that up with some soil borings and were able to identify the extent of the problem.

As the result of that, we have drawn two

new lines that encompasses an area a little bigger than over here. Little bit bigger than the two blobs over here on Phase I and slightly different than the blob that we had on Phase I for that side. Some of our follow-up borings and some of the higher numbers that we found here at B15-91, which is right here, was I think the winner. Almost seven hundred parts per million of total chlorinated organics in that spot. As we suspected, this area here is of concern to us. Basically, the reason why is there is a groundwater plume. But we think we have defined the source of the groundwater plume. And here are the two areas. As far as if you are going to excavate, you are not going to excavate a rounded area. We kind of have drawn a box around it. And here are the two areas that we are going to be doing something about as far as remediating the soil and eliminating the source of groundwater pollution. This area comprises a total of about 15,000 cubic yards of material that will be remediated.

As far as the field investigation goes

that Kevin had talked about earlier, I wanted to share with you a schedule that we prepared highlighting some of the activities and some of the things performed. We are pretty much on schedule with this. We have UXO support throughout the project. They are there to assure us there is no issue with ordnances. We are in the process of finishing geophysics. The seismic survey is to help us define the groundwater flow. We figured if the water table would be high enough, we could see the water table. The fact of the matter is the groundwater was very low at this time of year. We are finding the depth of bedrock -- the slope to bedrock will control how the groundwater flows. The bedrock is fairly impermeable. We will be able to place our monitoring wells on the upgrading of the SWMU. The EM31 and GPR is to help us find out anything that is buried.

Following that work will be some follow-up work with soil borings in selected areas at all these SWMU's followed by some test pitting. And some of the landfills we are investigating and following-up with

monitoring wells both up-gradient and down gradient of each SWMU.

There is also the process of well development. There is some surface water settlement and surface sampling depending on the SWMU. We are wrapping this up sometime in early or late January. That is all I basically have to say.

MR. ABSOLOM: Mike, one thing. At the ash landfill you didn't address -- was there any change in the plume -- the off site plume? I know you did some more.

MR. DUCHESNEAU: Right. I am glad you brought that up. The other good news is that the wells that we had installed along the toe here to better define the boundary of the plume here have also come back clean. So the off site wells that we placed in the farmer's field are all below detectable limits and essentially clean. Which means we can draw the extent of this plume, which is basically going to be around this area here -- we can wrap that contour right up to pretty much the fence line. That is good news.

MR. HEALY: Mike, that portion that is

presumed to extend off site, that ten parts per billion, how does that relate to the drinking water level or what's allowed in drinking water?

MR. DUCHESNEAU: For vinyl chloride, two parts per billion. For TCE, five parts per billion.

MR. HEALY: You in essence have ten parts per billion as opposed to the permissible level of five?

MR. DUCHESNEAU: This is a total of TCE and vinyl chloride. These are organics. This TCE is known to breakdown both of those products.

COMMITTEE MEMBER: What was the analytical method used to analyze the water from these wells from the off site?

MR. DUCHESNEAU: NYSDEC 524.2. We have not done five twenty-four on the new wells. We simply haven't had the time to go back out and re-sample. I don't think that was something that we were going to do. We have been monitoring the off site farm house wells quarterly using 524.2. The detection limit on that is half a part per billion. For a

lot of these things as part of Phase II the existing wells we had -- we went back out and did 524.2. For the new wells that we installed we have not done the first CLP round. The plan is to do one round with CLP and then a follow-up round with 524.2 to confirm any BDL, below detectable limits, that we had on the first round which was confirmed at the low detection limit on the second round. So we have done that on all the existing wells. We haven't completed that on the newer wells that we installed.

COMMITTEE MEMBER: But you plan on doing that?

MR. DUCHESNEAU: Yes, we are planning on doing that. Any other questions? Okay.

MR. ABSOLOM: Thank you, Mike. We did really well. One thing I would like to address -- it is not on the agenda that we have -- is that we have made all the adjustments on the Charter for this committee and we will be sending that around starting next week so that you will be seeing that hopefully for a final time. And the anticipation for this mailing will be for a

signatory mailing for everyone to sign off on it. I want everybody to know that is going to happen.

Randy, did you have anything that you would like to add at this point?

MR. BATTAGLIA: Other than we heard a few comments after the last TRC meeting that I would like to hear more during the meeting. They want to know more about what's going on at the Depot or more information about the other sites. I would like to hear about it so I can have a presentation at the next meeting. A lot of times you hear more in the discussions after than we hear in the meetings. At the previous TRC meetings I made a few presentations about all the other contaminated sites on Seneca Army Depot. Right now we had a brief overview of what's going on with the investigation of those 25 sites. If there are any questions, you can call me at the office, too. One thing, it is very important to get good feedback from what's going on and what's there. I just want to offer that out as far as any questions or anything.

All these documents that we are talking about and all these reports are going to be down in Willard in the town hall. There have been records there when they are final documents. Right now we have submitted an investigation report to -- it is in a first draft -- the EPA and the State for their review. Right before it is finalized it goes out for public comment also. That will eventually all be on record down there.

MR. ABSOLOM: Could you speak as to what it is going to look like for FYI?

COMMITTEE MEMBER: It is somewhat early in the fiscal year. Currently it is 100 percent funded. Currently Congress is talking about cutting the budget by approximately a quarter but I think that Seneca is far enough up in the range that it shouldn't effect this project.

MR. ABSOLOM: Can you give us an idea of the magnitude of the funding? How much you expect Seneca is going to get for FYI '94?

COMMITTEE MEMBER: Around nine million.

MR. ABSOLOM: At this time I would like to open the floor for questions or comments.

Does anybody have any comments or questions?

COMMITTEE MEMBER: Last time there was some discussion that some of the areas on the Seneca Army Depot be considered for residential use. Can anybody -- is it too early in staging to consider discussing what those locations might be? Or is it too early to have discussions on that? Or does anybody have an idea of what might be considered for residential use in the future?

MR. ABSOLOM: I believe the conversation at the last meeting went to when we do the risk assessment. We have to -- we are currently considering all the risk assessment as converting to residential use. I believe that is what was discussed last time. As to whether or not that was a realistic use or not, at this time there are no plans for Seneca to become a residential area.

COMMITTEE MEMBER: No portions that are considered at this time?

MR. ABSOLOM: Not at this point.

MR. BATTAGLIA: The same question came up in our permit review. The only potential areas that are set up right now for

residential type use on the base was along Route 96 out by Romulus, which is military housing and the down by the lake here. The rest is industrial use. When you say risk assessment, the potential future use was considered to be those housing areas, not Romulus. Those were the facilities being considered. In the early days of our mediation program we ended up going with a potential future scenario of residential use because no one really knows if they are going to be placed on base closure. It is just the possibility of that being out there. You can't say you are going to be open forever. As to the future use of the demo grounds or open burning area for residential use, I really think it is very unlikely any open burning will ever be released by the Army for residential use. There is always the potential of an unexploded ordnance even with a survey. But that is the scenario for risk. It makes a difference when you look at the numbers when you do the risk assessment. And for anybody else that is not familiar with the risk assessment process, that is where we

get that there might be some residential use.

COMMITTEE MEMBER: I understand that. I misunderstood. I thought there was actually some areas of the Depot that would be considered for public use for residences already.

MR. DURST: When you get to the point of actually doing the remediation efforts, do you know what technology we will be using? Is everything going to be land scraped and taken off to a storage site?

MR. HEALY: Right now what we are looking at, as far as the ash landfill, for soil remediation is basically two things. Soil extraction, you drill wells in the ground and pump the gas out. That is the lesser of the two alternatives. The other would be low temperature absorption. You pick the soil up and you put it in a glorified roaster and it comes out clean. And whatever comes through the first stage is put in an after burner and the second time it is burned off.

The groundwater, it will be a pump and treat. I referred a couple meetings ago

about Professor Jules (phonetic) method, the bio-reaction. That could also be a possibility. And then also the later one we thought of called UV ozone.

MR. DUCHESNEAU: UV ozone. It is chemical oxidation using ultraviolet light combined with ozone or possibly hydrogen peroxide. There are several vendors that provide that system that can destroy the chlorinates in the liquid phase. The advantage of that is it has no air emissions.

MR. HEALY: Each of the alternatives would be pretty much enclosed. The actual treatment wouldn't cause any releases. As far as digging the soil up and moving the groundwater, we would have to take precautions to make sure nothing was released that would be harmful to anybody.

MR. DURST: Which methods would be applicable to the heavy metals?

MR. HEALY: The methods that we were just referring to, which would be more in line with the interim remedial measure which is something you do right now because you know what the source is. The metals will

pose more of a problem. We will have to wait until the end of the FS, which will be another several months away. Once that FS is done we will be able to consider the metals in their entirety. But the solutions that we talked about now as part of the RI deal with the volatiles and pHs. The metals will have to be considered more in depth in a final solution.

COMMITTEE MEMBER: We are just starting to look at the FS for the OB grounds. It is a stabilized soil washing technology in dealing with the heavy metals.

MR. DUCHESNEAU: The fact is you are not going to destroy an inorganic molecule like TCE. I am sure you are aware of that. And so the best thing you can do is stabilize the heavy metals so they are not leaching out or moving off site. Jim mentioned stabilization and possibly an on-site cap of some sort or possibly an on-site landfill. You have a containment/stabilization process.

COMMITTEE MEMBER: Mike, you mentioned the ash landfill. Do you have a number that -- do you have a number for the burn pad

area?

MR. DUCHESNEAU: Not at this time. Part of the reason is because it is so widespread. There are berms on each of the pads. And how much of those berms are impacted is the question. Is it the whole berm? Is it half the berm? In the ash landfill it is a very tight localized area. At the opening burning ground it is fairly dispersed. What we need to do is look at if we excavate all the berms what happens to the risk. Does the risk come down to a point at which we can live with? So that is the process we are going through right now as part of the FS.

MR. ABSOLOM: I would like to point out, keep in mind all these are proposals which are being considered and nothing has been finalized. No decision has been made on how we are going to do that.

MR. HEALY: Any decision that would be made is ultimately open to review by everybody involved including the public.

MR. DUCHESNEAU: The technology that we have talked about are fairly well accepted technologies. They have a track record -- a

proven track record of success and so we think that is an important factor to consider. This isn't like a research project. We are not trying to make a brave new ground, if you will. There is a lot of technologies out there that are well established to deal with these problems. I mean, TCE and heavy metals are well documented and fairly common at a lot of different sites and the remedial technologies are always documented and proven.

MR. ABSOLOM: Any other questions? If no one has any other questions, what I would like to do is establish -- get some dates or ideas for the next TRC. We have been running it on a quarterly basis. I propose sometime in maybe late January.

MR. BATTAGLIA: We are going to put it off to February 2nd. He may have some documents that are going to be submitted by Engineering Science in January. So January is real busy. Instead of having it in January we will pick February 2nd. There should be more to present. We should have more on the intermediate action of the

landfill at that time.

MR. ABSOLOM: February 2nd has been proposed. It is a Wednesday. Does that meet with everybody's schedule? Do I have any nays? Okay. That is what it will be. February 2nd we will reconvene at 12:30. I would like to come back and start reconvening at the newly remodeled NCO Club. We will confirm that. It is going to open next Monday. It shouldn't be a problem. I don't know their schedule so we will be back on the installation and you will be able to get lunch there, which is one thing you can't do here.

If nobody has any further questions or comments, I would like to adjourn. Thank you all for coming. Appreciate it.

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C E R T I F I C A T I O N

I, Patricia Ann Nelk, hereby certify that I reported in stenotype shorthand the proceedings had on the 13th day of October, 1993, in the matter of the TRC Meeting.

And that the foregoing transcript, herewith numbered pages 2 through 39, is a true, accurate and correct record of those stenotype shorthand notes to the best of my ability.

Patricia A. Nelk

Patricia Ann Nelk

DATED AT: Rochester, New York

this 2nd day of November, 1993.