

ATTACHMENT I

Weekly Meeting Agenda and Minutes for the ISTR Construction Period

[provided on CD with hardcopies]

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Wellfield Construction Meeting**

Agenda

May 2, 2013, 1:00 PM ET

Dial In: (866)503-5711

Participant Code: 5082669528

I. Previous Meeting Minutes

- A) Preparation and Distribution of Meeting Minutes

II. Safety/Housekeeping

- A) Safety Summary

III. Schedule/Progress Review

- A) Final schedule has been submitted
- B) Summary of Work completed since previous meeting
- C) Record keeping/daily reports

IV. Status of Action Items from Previous Progress Meeting

- A) Revisions to TWISP
- B) Abscope scheduled to be on-site starting Tuesday, May 7th, to repair erosion control and seed areas as required.

VI. Quality Control / Quality Assurance

- A) IQAT Summary of Observations
 - a. Site Inspection

VIII. Identification of Problems that May Impede Planned Progress

- A) None

VII. Engineering and Design Items

- A) Revisions to numbering of TMP and VMP

IX. Other Business

- A) Soil cuttings disposal area has been established, cuttings are being placed in disposal area

X. New Action Items

- A) Finalize figure with TMP and VMP

XI. Meetings

The next progress meeting will be held at 1:00 pm EST on Thursday May 9, 2013.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Robin Swift, Shannon Pociu, David Lehnus, Mike Skowronek, Bruce Thompson

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Wellfield Installation - Meeting Minutes

Date: May 8, 2013

On May 2, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) well field installation was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis - John Hunt, Jessie McCusker
- ARCADIS (Arcadis) - Jeff Holden
- TerraTherm, Inc – Kevin Crowder
- IQAT – Clayton Smith

I. Meeting Minutes

- A. de maximis provided an agenda for the meeting. Minutes from the previous progress meeting held on April 18, 2013 were distributed on April 22, 2013. Meeting participants were asked to provide comments ASAP. The final meeting minutes will be uploaded to the Project Portal.

II. Safety/Housekeeping

- A. No Safety or housekeeping activities were noted. TeraTherm conducts daily tailgate safety meetings at the start of each workday.

III. Schedule/Progress Review

- A. de maximis provided the following summary of work completed as of May 2, 2013:
- a) Heater wells completed-61
 - b) Vapor extraction wells completed - 57
 - c) Temperature monitoring points completed-5
 - d) Pressure monitoring points completed-5
- B. Personal air monitoring with-in the vicinity of the drilling has been performed by TerraTherm personnel during working hours.
- C. Perimeter Air monitoring readings have been taken consistent with the plan during working hours and no elevated readings have been observed or recorded.

- D. A schedule for the duration of the well field has been submitted by TerraTherm, a copy is attached.
- IV. Record Keeping**
- A. The Well field Installation is being documented in daily logs kept by TerraTherm and submitted to de maximis the following day. Field notes and daily logs are also being recorded by Arcadis and de maximis staff. Boring logs, along with photographs, will be uploaded to project portal if NAPL is encountered.
- V. Quality Control / Quality Assurance**
- A. TerraTherm / QC
- a) No CQC issues were noted during this period.
- B. Arcadis / QA
- a) No QA issues were noted during this period
- C. IQAT
- a) IQAT did not identify any work that did not meet the requirements of the project documents during this reporting period.
- VI. Engineering and Design Items**
- A. TerraTherm to send updated figure with revised TMP and PMP labels.
- B. de maximis specified that the additional temperature and pressure monitoring points to be monitored for the same parameters and at the same frequency that the other points be monitored for.
- VII. Identification of Problems that May Impede Planned Progress**
- A. Weather
- VIII. Other Business**
- A. The revised TWISP has been uploaded to Project Portal any future changes will be provided in an addendum.
- B. Abscope will be on-site on May 7, 2013 to re-seed and re-grade specified areas
- IX. New Action Items**
- A. None
- X. Upcoming Meetings**
- A. The next progress meeting will be held at 1:00 pm EST on Thursday, May 16, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Wellfield Construction Meeting**

Agenda

May 16, 2013, 1:00 PM ET

Dial In: (866)503-5711

Participant Code: 5082669528

I. Previous Meeting Minutes

- A) Preparation and Distribution of Meeting Minutes

II. Safety/Housekeeping

- A) Safety Summary

III. Schedule/Progress Review

- A) Final schedule has been submitted
- B) Summary of Work completed since previous meeting
- C) Record keeping/daily reports

IV. Status of Action Items from Previous Progress Meeting

- A) TWISP has been uploaded
- B) Abscope completed erosion control work

V. Quality Control / Quality Assurance

- A) IQAT Summary of Observations
 - a. Site Inspection

VI. Identification of Problems that May Impede Planned Progress

- A) None

VII. Engineering and Design Items

- A) None

VIII. Other Business

- A) None

IX. New Action Items

- A) None

XI. Meetings

The next progress meeting will be held at 1:00 pm EST on Thursday May 23, 2013.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Karen Lumino, Michael Skowronek

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Wellfield Installation - Meeting Minutes

Date: May 22, 2013

On May 16, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) well field installation was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis - John Hunt, Jessie McCusker, Bruce Thompson
- ARCADIS (Arcadis) - Jeff Holden
- TerraTherm, Inc – Kevin Crowder, Robin Swift
- IQAT – Clayton Smith, David Lehnus
- CTDEEP- Shannon Pociu

I. Meeting Minutes

- A. de maximis provided an agenda for the meeting. Minutes from the previous progress meeting held on May 2, 2013 were distributed on May 8, 2013. Meeting participants were asked to provide comments ASAP. The final meeting minutes will be uploaded to the Project Portal.

II. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. No recordable incidents were reported this period.

III. Schedule/Progress Review

- A. de maximis provided the following summary of work completed as of May 15, 2013:
- a) Heater wells completed-125
 - b) Vapor extraction wells completed - 120
 - c) Temperature monitoring points (TMP) completed-12
 - d) Pressure monitoring points (PMP) completed-11
- B. TerraTherm continues to perform personal air monitoring with-in the vicinity of the drilling zone during working hours.
- C. Arcadis continues to perform perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.

IV. Record Keeping

- A. The well field boring logs are being recorded by TerraTherm and submitted to de maximis the following day. Additional field notes and logs are also being recorded by Arcadis and de maximis staff. Boring logs, along with photographs, will be uploaded to project portal if NAPL is encountered. To date, no presence of NAPL was identified that triggered borehole NAPL removal procedures or segregation of drill cuttings. Cuttings are being placed in the designated consolidation area, located in the eastern portion of the thermal treatment zone.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) On Monday, May 13, 2013 it was discovered that there was a discrepancy in that the numbering of the wells in the field and the numbers identified in the figure were not matching. Drill Rig #1430 set up to start the first boring at the north end of the middle terrace at the appropriate location but the boring was identified incorrectly, causing subsequent borings to be mislabeled. Corrective action was to keep consistent with what is in the figure and re-label the boring logs to match the current figure his action will help avoid confusion during future operations.
- B. Arcadis / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT did not identify any work that did not meet the requirements of the project documents during this reporting period.

VI. Engineering and Design Items

- A. TerraTherm has provided an updated figure with revised TMP and PMP labels.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. The amount of soil cutting that have accumulated in the designated soil cuttings area is being monitored and TMC will most likely be needed to perform compaction after the Memorial Day holiday weekend.
- B. EPA would like to schedule a design review for the ISTR Design, a meeting will most likely be scheduled around July 8th, 2013.

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 1:00 pm EST on Thursday, May 23, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Wellfield Construction Meeting**

Agenda

May 23, 2013, 1:00 PM ET

Dial In: (866)503-5711

Participant Code: 5082669528

I. Previous Meeting Minutes

- A) Preparation and Distribution of Meeting Minutes

II. Safety/Housekeeping

- A) Safety Summary

III. Schedule/Progress Review

- A) Final schedule has been submitted
- B) Summary of Work completed since previous meeting
- C) Record keeping/daily reports

IV. Status of Action Items from Previous Progress Meeting

- A) TWISP has been uploaded
- B) Abscope completed erosion control work

V. Quality Control / Quality Assurance

- A) IQAT
 - a. Observation
- B) Arcadis
 - a. Perimeter air monitoring
- C) TerraTherm
 - a. Boring Logs

VI. Identification of Problems that May Impede Planned Progress

- A) None

VII. Engineering and Design Items

- A) None

VIII. Other Business

- A) None

IX. New Action Items

- A) None

XI. Meetings

The next progress meeting will be held at 1:00 pm EST on Thursday May 30, 2013.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Bruce Thompson, John Hunt, Jeff Holden, Michael Skowronek, David Lehnus, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Wellfield Installation - Meeting Minutes

Date: June 5, 2013

On May 23, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) well field installation was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis - Jessie McCusker
- TerraTherm, Inc – Kevin Crowder, Robin Swift, Bill Condon
- IQAT – Clayton Smith
- USEPA-Karen Lumino

I. Meeting Minutes

- A. de maximis provided an agenda for the meeting. Minutes from the previous progress meeting held on May 16, 2013 were distributed on May 22, 2013. Meeting participants were asked to provide comments ASAP. The final meeting minutes will be uploaded to the Project Portal.

II. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. No recordable incidents were reported this period.

III. Schedule/Progress Review

- A. de maximis provided the following summary of work completed as of May 22, 2013:
- a) Heater wells completed–169
 - b) Vapor extraction wells completed - 164
 - c) Temperature monitoring points (TMP) completed-13
 - d) Pressure monitoring points (PMP) completed-13
- B. TerraTherm continues to perform personal air monitoring with-in the vicinity of the drilling zone during working hours.
- C. Arcadis continues to perform perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.

IV. Record Keeping

- A. The well field boring logs are being recorded by TerraTherm and submitted to de maximis the following day. Additional field notes and logs are also being recorded by Arcadis and de maximis staff. Cuttings are being placed in the designated consolidation area, located in the eastern portion of the thermal treatment zone.
- B. NAPL was identified in HO-479 on 5-17-1, upon checking the borehole with a weighted bailer a film of NAPL was observed coating the bailer. Peristaltic tubing was subsequently lowered to the bottom of the borehole but no NAPL was recovered (just water). The tubing was then raised to the top of the water column and skimmed the water surface. While skimming the water surface we recovered 1 gallon of water containing NAPL blebs and emulsions. The NAPL exhibited a petroleum-like odor. There was no NAPL observed in the overburden soil cuttings, just odors. A copy of the boring log for HO-479 and photos are attached.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period
- B. Arcadis / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT did not identify any work that did not meet the requirements of the project during this reporting period.

VI. Engineering and Design Items

- A. None.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. The amount of soil cutting that have accumulated in the designated soil cuttings area is being monitored and TMC will most likely be needed to perform compaction after the Memorial Day holiday weekend.

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 1:00 pm EST on Thursday, June 15, 2013.

SRSNE SUPERFUND SITE WELL CONSTRUCTION DETAILS				
DATE	5-17-13		<div style="text-align: center;">2'</div> <div style="text-align: center;">23'</div>	
WELL ID	H0479			
DESIGN DEPTH TO BEDROCK	12	15	(21)	<div style="text-align: center;">0820</div> <div style="text-align: center;">0.7</div>
DESIGN DEPTH OF BORING	16	19	(25)	
DESIGN LENGTH OF CAN	18	21	(27)	<div style="text-align: center;">0840</div> <div style="text-align: center;">0.4</div>
DRILLER	DALE			
RIG NUMBER	1409			
START TIME	0752			
BEDROCK ENCOUNTERED AT	23		FT	
TIME BEDROCK ENCOUNTERED	0820			
NAPL PRESENT	YES			
TIME START PUMPING NAPL	0843			
TIME FINISH PUMPING NAPL	0912			
HO COMPLETION DEPTH	27		FT	
MODIFIED HO DEPTH	+2			
MODIFIED HO LENGTH	+2			
HO FINISH TIME	0952			
NOTES: PID @ INTERFACE - 0.7ppm IN BREATHING ZONE 5 LITERS OF PRODUCT WAS PUMPED BY DEMAXIMIS / ARCADIS				
ANY SUSTAINED PID READINGS?			NO	<div style="text-align: center;">Garret Dewey</div> <div style="text-align: center;">DAVE / DAVID</div> <div style="text-align: center;">YES NO</div> <div style="text-align: center;">29 MINUTES</div> <div style="text-align: center;">APPROVED BY</div>
DRAGER TUBE TAKEN?			NO	
TERRATHERM TEAM				
ARCADIS/de maximis				
STAND BY				
TOTAL OF STAND BY				
APPROVED BY				



HO-479



HO-479

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

September 26, 2013, 1:30 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Summary of Work Completed during ISTR Wellfield Construction
 - 1) Wellfield installation complete
- b) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Survey wellfield (X, Y, Z)
 - 2) Start Placement of Insulating Concrete Cover
 - 3) Placement of Horizontal Vapor Extraction Wells
 - 4) Monitoring Well Development
 - 5) Equipment pad grading and installation
 - 6) Gas line trenching
 - 7) Electrical line trenching
 - 8) Multiple trucks arrive with materials/equipment

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
 - 1) ISTR Wellfield “As Build”
- c) IQAT
 - 1) Observations

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) Revised Electrical Design

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) The next progress meeting to be determined

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Bruce Thompson, John Hunt, Jeff Holden, Ryan Malone, Karen Lumino, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: October 8, 2013

On September 26, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis - Jessie McCusker
- TerraTherm, Inc – Robin Swift, Derek LaRosse
- IQAT – Clayton Smith, David Lehnus
- ARCADIS-Michael Skowronek

I. Meeting Minutes

- A. de maximis provided an agenda for the meeting.

II. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there were no recordable injuries reported during installation of the thermal wellfield.
- C. TerraTherm will continue to perform personal air monitoring with-in the work zone during working hours.

III. Schedule/Progress Review

- A. de maximis noted that drilling activities associated with installation of the thermal wellfield was completed on September 24, 2013. Drilling started on April 23 and a summary of all drilling work completed as of September 24, 2013 follows:
- a) Heater wells (HO) completed– 602
 - b) Vapor extraction wells (VEW) completed - 556
 - c) Temperature monitoring points (TMP) completed- 99
 - d) Pressure monitoring points (PMP) completed- 65
 - e) Groundwater monitoring wells (ISTR) completed- 7-Wells have been developed
- B. The proposed ISTR construction schedule “two week look ahead” is summarized below:

- a) Elastizell will mobilize to the site and placement of the insulating cap is scheduled to begin the first week of October.
- b) The horizontal vapor extraction wells are scheduled to be installed next week.
- c) An X,Y,Z survey of the well field is scheduled to begin next week.
- d) Installation of the gas line up lazy lane is scheduled to begin next week.
- e) Installation of the equipment pad and trenching for the gas line and electrical will be scheduled in the next two weeks.

IV. Record Keeping

- A. Final boring logs completed by TerraTherm have been submitted to de maximis. Additional field notes and logs are also being recorded by Arcadis and de maximis staff.
- B. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and Arcadis.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period
- B. Arcadis / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that TerraTherm has begun pressure testing of the welded liners (that are to be inserted into the heater cans) and asked that TerraTherm continue to make available for review any new field construction quality control forms.

VI. Engineering and Design Items

- A. None.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 1:30 pm EST on Thursday, October 10, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

October 10, 2013, 1:30 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Survey wellfield (X, Y, Z)-started
 - 2) Continue Placement of Insulating Concrete Cover
 - 3) Placement of Horizontal Vapor Extraction Wells-completed
 - 4) Monitoring Well Development-completed
 - 5) Equipment pad grading and installation
 - 6) Gas line trenching
 - 7) Electrical line trenching
 - 8) Transformers scheduled to be delivered October 10, 2013

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
 - 1) ISTR Wellfield “As Build”
- c) IQAT
 - 1) Thermal cap thickness discrepancy in northern tier located within the TTZ

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) Revised Electrical Design

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) The next progress meeting is scheduled for October 17, 2013, 1:30 pm EST



APPROXIMATELY 14"

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Karen Lumino

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: October 23, 2013

On October 10, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Bruce Thompson, Jessie McCusker
- TerraTherm, Inc (TerraTherm) – Robin Swift, Derek LaRosse, Andy Craig
- IQAT – Clayton Smith, David Lehnus
- ARCADIS - Jeffery Holden, Michael Skowronek
- CTDEEP – Shannon Pociu

I. Meeting Minutes

- A. Minutes from the previous progress meeting held on September 26, 2013 were distributed on October 8, 2013.

II. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there was no safety incidents reported during this period.

III. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) The horizontal vapor monitoring wells have been installed.
 - b) Installation of the concrete cover began on October 1, 2013.
 - c) An X,Y,Z survey of the well field has been started and is scheduled to continue into next week.
 - d) Installation of the concrete cover began on October 1, 2013. Placement of the concrete cover continues is expected to be completed by the end of October or the first week of November.
 - e) TerraTherm is in the process of hiring a contractor to install the concrete equipment pad as well as a contractor to install the gas and electrical lines.
 - f) Installation of the gas main along Lazy Lane was started.

IV. Record Keeping

- A. Final boring logs completed by TerraTherm have been submitted to de maximis. Additional field notes and logs are also being recorded by Arcadis and de maximis staff.
- B. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and Arcadis.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. Arcadis / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that there is a discrepancy in the cap thickness in the northern tier located within the TTZ. An additional step will be poured in the area to insure the thickness of the cap.

VI. Engineering and Design Items

- A. None.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 1:30 pm EST on Thursday, October 24, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

October 24, 2013, 1:30 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Survey wellfield (X, Y, Z)-Completed 10-21-13
 - 2) Continue Placement of Insulating Concrete Cover
 - 3) Sealant application and procedures
 - 4) Equipment pad grading and installation
 - 5) Gas line trenching
 - 6) Electrical line trenching

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
 - 2) Raising of catch basin
- b) TerraTherm
 - 1) ISTR Wellfield “As Build”
- c) IQAT
 - 1) Discuss how to verify concrete cover thickness has been achieved in some areas where ground is sloped and steps have been installed

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) Revised Electrical Design

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) The next progress meeting is TBD

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

November 6, 2013, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Survey well field (X, Y, Z)
 - 2) Sealant application
 - 3) Liner and heater installation
 - 4) Equipment pad grading and installation
 - 5) Gas line trenching
 - 6) Electrical line trenching

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
 - 2) Drainage
- b) TerraTherm
 - 1) ISTR Wellfield “As Build”
- c) IQAT
 - 1) To insure areas where concrete is not 14” there is proper insulation, a copy of the R factor results for concrete samples that were sent to the lab

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) Revised Electrical Design-received 11-2-13
- c) O&M Plan Draft
- d) RAWP revisions

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) The next progress meeting is Wednesday, November 13, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: November 10, 2013

On November 6, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Bruce Thompson, Jessie McCusker
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosse, Andy Craig
- O&M, Inc – Ryan Malone
- IQAT – Clayton Smith, David Lehnus
- ARCADIS - Jeffery Holden, Michael Skowronek
- USEPA – Karen Lumino, Eva Davis

I. Meeting Minutes

- A. Minutes from the previous progress meeting held on October 24, 2013 have not been distributed, they will be distributed ASAP

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) Sealant application-in process expected to be complete this week
 - b) An X,Y,Z survey of the well field has been completed, as-builts should be complete by the end of the week
 - c) 85% of the liners and 25% of the heaters have been installed
 - d) The grading and installation of the equipment pad will begin on November 8th
 - e) A contractor has been hired to trench the gas, water and electrical lines
 - f) A copy of the revised electrical design has been sent to the electrical contractor

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday. It was noted there will be heavy traffic on site because multiple deliveries are scheduled for the next few weeks.
- B. TerraTherm noted that there was no safety incidents reported during this period.

IV. Record Keeping

- A. The revised electrical design was submitted on November 2nd

- B. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and Arcadis.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. Arcadis / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
 - b) Arcadis and O&M completed modification of the catch basin located within the TTZ. The catch basin had to be raised approximately 16" to the level of the concrete cap. The grading of the cap seems to be consistent with the grade set up during the PIPP work, very little ponding has occurred on the cap and water appears to be draining in the proper direction.
- C. IQAT
 - a) IQAT noted that there are areas where the Cap is not 14", Elastizell maintains that test results show the R factor has been met at a lesser thickness. These test results will be submitted as soon as they become available.

VI. Engineering and Design Items

- A. The revised Electrical Design was submitted on November 2nd

VII. Identification of Problems that May Impede Planned Progress

- A. Weather –the sealant cannot be applied if it is less than 40°F

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday November 13, 2013.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Bruce Thompson, John Hunt, Jeff Holden, Robin Swift, Tim Mahoney, Eva Davis, Shanon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: November 19, 2013

On November 13, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis –, Jessie McCusker
- TerraTherm, Inc (TerraTherm) –, Derek LaRosse, Andy Craig
- O&M, Inc – Ryan Malone
- IQAT – Clayton Smith, David Lehnus
- ARCADIS - Michael Skowronek
- USEPA – Karen Lumino

I. Meeting Minutes

- A. Minutes from the November 6, 2013 meeting were distributed on November 13, 2013, comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) 98% of the liners and 16% of the heaters have been installed.
 - b) TerraTherm is in the process of removing grout from HO-104,
 - c) The installation of the equipment pad will be completed on Monday, November 18th, 2013.
 - d) A contractor has been hired to trench the gas, water and electrical lines and a schedule is being developed.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday. It was noted there will be heavy traffic on site because multiple deliveries are scheduled for the next few weeks.
- a) TerraTherm noted that there was no safety incidents reported during this period.

IV. Record Keeping

- A. The Draft as-builds for the ISTR well field were submitted on November 8, 2013

- B. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and Arcadis. O&M is analyzing options to power the perimeter air monitoring system when the operation of the thermal system becomes 24/7.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. Arcadis / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) The IQAT noted that the laboratory testing results for R factor vs. density testing or the compression testing of the concrete cover components has not been submitted by TerraTherm. Terra Therm noted that they will provide the testing data when it becomes available.
 - b) IQAT has requested any specifications or checklists regarding installation of equipment from TerraTherm.

VI. Engineering and Design Items

- A. The revised Electrical Design was submitted on November 2nd
- B. A Draft As Built for the ISTR well field were submitted on November 8, 2013

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday November 20, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

November 20, 2013, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Liner and heater installation
 - 2) Equipment pad grading and installation-Valley Concrete-complete
 - 3) Gas, electric, and water line trenching
 - 4) Holiday Schedule

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
 - 1) ISTR Wellfield “ Draft -As Build”
- c) IQAT
 - 1) TerraTherm has not submitted R factor vs. density testing or compression testing results for the completed concrete cap.

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) O&M Plan Draft
- c) RAWP revisions
- d) Updated design drawings

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) The next progress meeting is Wednesday, December 4, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Eva Davis, Clayton Smith, David Lehnus

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: December 3, 2013

On November 20, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis –, Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosse
- O&M, Inc – Ryan Malone
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- USEPA – Karen Lumino
- CTDEEP – Shannon Pociu

I. Meeting Minutes

- A. Minutes from the November 13, 2013 meeting were distributed on November 20, 2013, comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) 99% of the liners, 99% of the heater boxes, and 85% of the heaters have been installed.
 - b) Cascade Drilling is scheduled to stop by the site over the weekend to assess the grout situation in HO-104.
 - c) The installation of the equipment pad has been completed, TerraTherm expects to start placing equipment on the pad the 1st week of December.
 - d) A contractor has been hired to trench the gas, water and electrical lines a schedule is still being developed, but installation will most likely take place in mid-December.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there was no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and Arcadis. O&M is analyzing options to power the perimeter air monitoring system when the operation of the thermal system becomes 24/7.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. Arcadis / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) The IQAT noted that the laboratory testing results for R factor vs. density testing or the compression testing of the concrete cover components has not been submitted by TerraTherm. Terra Therm noted that they will provide the testing data when it becomes available.

VI. Engineering and Design Items

- A. The revised draft O&M Manual is on schedule to be delivered by November 27, 2013.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. A press release, through the town of Southington and the SRSNE.com website, will be scheduled prior to the start of operations.

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday December 4, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

December 4, 2013, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Liner, heater box, heater installation
 - 2) Wire home runs
 - 3) VEW/PMP piping
 - 4) Grout removal from HO-104
 - 5) Equipment installation
 - 6) Gas, electric, and water line trenching

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
 - 2) ISTR Monitoring well cap installation
- b) TerraTherm
- c) IQAT
 - 1) TerraTherm has not submitted R factor vs. density testing or compression testing results for the completed concrete cap.

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) O&M Plan Draft-Submitted 11-27-13
- c) RAWP revisions

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) The next progress meeting is Wednesday, December 11, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Bruce Thompson, Shannon Pociu, Robin Swift

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: December 6, 2013

On December 4, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker
- TerraTherm, Inc (TerraTherm) –Tim Mahoney, Derek LaRosee
- O&M, Inc – Ryan Malone
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- USEPA – Karen Lumino, Eva Davis
- IQAT – David Lehnus, Clayton Smith

I. Meeting Minutes

- A. Minutes from the November 20, 2013 meeting were distributed on December 3, 2013, comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) 99.8% of the liners, 99% of the heater boxes, 92% of the heaters, 51% of the VEW assemblies, 30% of the FRP wellfield, and 75% of the homeruns have been installed.
 - b) Cascade Drilling attempted to remove the grout from HO-104 using a smaller diameter drill and compressed air to remove the grout. The process was unsuccessful in removing enough grout to place a heater in the well. Options to remove the remaining grout are being explored.
 - c) The condensate tank, vapor coolers, moisture separator and various other pieces of equipment have been placed on the equipment pad. The manifold and blowers are expected to be place on the pad in the next few weeks and additional equipment will also be arriving to the site.
 - d) Most of the gas line has been installed down the length of Lazy Lane with the exception being across the bridge that crosses the Quinnipiac River. Yankee Gas is in the process of finalizing the plan to cross the river and the line will be completed within a few weeks.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.

- a) TerraTherm noted that there were no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period. A cost analysis has been prepared by O&M to compare the most cost effective way to power the air monitoring system during the 24/7 operation period. This will be reviewed and a decision will be made.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) The IQAT noted that the laboratory testing results for R factor vs. density testing or the compression testing of the concrete cover components has not been submitted by TerraTherm. Terra Therm noted that they have received some tests results and are currently in the process of reviewing them, they will forward them on when they complete their review.
 - b) IQAT requests updated drawings, specifications and checklists that could be helpful in completing QA/QC during construction.

VI. Engineering and Design Items

- A. The O&M Manual was submitted on November 27, comments will be submitted ASAP.
- B. The revised RAWP has been submitted to TerraTherm for input and clarification on certain "response to comments".

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday December 11, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

December 11, 2013, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Heater box, heater installation
 - 2) Wire home runs
 - 3) VEW/PMP piping
 - 4) Grout removal from HO-104
 - 5) Equipment installation
 - 6) Gas, electric, and water line trenching

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
 - 2) ISTR Monitoring well cap installation
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) O&M Plan Draft
- c) RAWP revisions
- d) ERP

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) The next progress meeting is Wednesday, December 18, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Bruce Thompson, Karen Lumino, Michael Skowronek, Ryan Malone

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: December 17, 2013

On December 11, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker
- TerraTherm, Inc (TerraTherm) –Robin Swift, Tim Mahoney, Derek LaRosee, Andy Craig
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- USEPA –Eva Davis
- CTDEEP-Shannon Pociu
- IQAT – David Lehnus, Clayton Smith

I. Meeting Minutes

- A. Minutes from the December 4, 2013 meeting were distributed on December 10, 2013, comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) 100% of the liners, heater boxes and heaters, jumpers have been lain out and they are currently working on home runs.
 - b) Cascade Drilling removed the grout from HO-104
 - c) A crane is scheduled to be on site 12-13-13 to place the oxidizer on the equipment pad and to rotate the vapor coolers.
 - d) Equipment is currently being connected on the equipment pad.
 - e) Trenching and welding of pipe for gas, water, and electric lines is expected to take place next week.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the recent cold and wintry weather.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period. Marine batteries have been purchased to supply energy to stations during 24/7 operations.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that laboratory testing results for R factor vs. density testing or the compression testing of the concrete cover components have been submitted and reviewed. Test results indicate R factors exceeded what was expected for the thickness of the concrete.
 - b) IQAT requests updated drawings, specifications and checklists that could be helpful in completing QA/QC during construction.

VI. Engineering and Design Items

- A. The O&M Manual was submitted by TerraTherm on November 27 and comments were submitted to TerraTherm on December 9, TerraTherm is currently working on addressing these comments.
- B. The revised RAWP has been submitted to TerraTherm for input and clarification on certain “response to comments”.
- C. The Emergency Response plan will be submitted to TerraTherm for their input ASAP.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday December 18, 2013.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

December 18, 2013, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Wire home runs
 - 2) VEW/PMP piping
 - 3) Equipment installation
 - 4) Gas, electric, and water line trenching

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction
- b) Recent security issue

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
 - 2) ISTR Monitoring well cap installation
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service
- b) O&M Plan Draft
- c) RAWP revisions
- d) ERP

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) Because of the holiday schedule the next progress meeting is Wednesday, January 8, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: January 6, 2014

On December 11, 2013 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson,
- TerraTherm, Inc (TerraTherm) –Robin Swift, Tim Mahoney, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- USEPA –Eva Davis, Karen Lumino
- CTDEEP-Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the December 11, 2013 meeting were distributed on December 17, 2013, comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) 100% of the liners, heater boxes and heaters, 60 % of the VEW’s for Phase I have been piped, 80% of the home runs and 6% of the jumpers have been laid out.
 - b) Equipment is currently being connected on the equipment pad.
 - c) Trenching and welding of pipe for gas, water, and electric lines is started on Monday (12-16-13) and is expected to be completed by Friday (12-20-13).

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the recent cold and wintery weather.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period. A Marine

battery has been purchased to supply energy to stations during 24/7 operations, the battery was tested and powers the system for approximately 63hrs. Additional batteries will be purchased to power 2 of the stations and the 2 remaining will be powered by on-site electrical supply.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that laboratory testing results for R factor vs. density testing or the compression testing of the concrete cover components have been submitted and reviewed. Test results indicate R factors exceeded what was expected for the thickness of the concrete.
 - b) IQAT requests updated drawings, specifications and checklists that could be helpful in completing QA/QC during construction.

VI. Engineering and Design Items

- A. The O&M Manual was submitted by TerraTherm on November 27 and comments were submitted to TerraTherm on December 9, TerraTherm is currently working on addressing these comments. It has been requested that this document be marked confidential when submitted and uploaded to project portal.
- B. The revised RAWP has been submitted to TerraTherm for input and clarification on certain "response to comments".
- C. The Emergency Response plan was submitted to TerraTherm for their input on 12-12-13.
- D. Updated VEW/PMP piping design drawings have been requested.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. A press release through local websites and papers are planned prior to start-up of the system
- B. Hydraulic Containment
 - a) A new valve pit will be installed so NCTRA 2 lines can be diverted to an unused force main and can remain on-line when lines are cleaned out and wells are redeveloped.
 - b) An additional well will be installed (RW-15) to the NCTRA 2 system, adding this well should help maintain max GPM for the system, and help avoid the increases in VOCs in 707DR that have happened historically when the flow rate drops.

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday January 8, 2013.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
October 1, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Heaters set to 20% (9/1/14)
- y) Heaters set to 30% (9/2/14)
- z) Heaters set to 40% (9/3/14)
- aa) Heaters set to 50% (9/8/14)
- bb) Heaters set between 60-70% (9/10/14)
- cc) Clay filter offline (9/27/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Updated schedule
- b) 2nd Progress soil sampling event tentatively scheduled starting October 13th.

VIII) Other Business

- a) “Root Cause Analysis” memo submitted September 18th, revisions or an addendum will be submitted following analysis from Prevox and Bill Troxler.
- b) Installation of RW-15 will commence the week of October 6th.
- c) The next progress meeting is Wednesday, October 8, 2014, 2:00pm (EST)

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

January 8, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Wire home runs
 - 2) VEW/PMP piping
 - 3) Equipment installation
 - 4) Gas, electric, and water line trenching

III) Safety / Housekeeping

- a) Safety Summary during ISTR Wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
 - 2) ISTR Monitoring well cap installation
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service

VII) New Action Items

- a) To be determined

VIII) Other Business

- a) Because of the holiday schedule the next progress meeting is Wednesday, January 15, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Bruce Thompson, Tim Mahoney

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: January 14, 2014

On January 8, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- USEPA –Eva Davis, Karen Lumino
- CTDEEP-Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the December 18, 2013 meeting was distributed on January 6, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) 100% of the liners, heater boxes, heaters, and heater circuits-circuits need to be tested and grounding will be installed starting next week
 - b) 98 % of the VEW’s for Phase I have been piped-should be completed by Monday, January 13th
 - c) 100% of the PMP’s for Phase I have been laid out and Phase II is currently being tested in the shop and installation will commence next week.
 - d) Equipment is currently being connected on the equipment pad.
 - e) Trenching and welding of pipe for gas, water, and electric lines was started on Monday (12-16-13) and is expected to be completed next week.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.

- b) It was noted that the cap has become very slippery because of the weather conditions on-site, extra precautions should be taken when walking on the cap.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all of the VEW connections and heater box wiring connections have been inspected and it appears to be consistent with the design drawings.
 - b) IQAT requests updated drawings, specifications and checklists that could be helpful in completing QA/QC during construction.

VI. Engineering and Design Items

- A. The revised RAWP has been submitted to EPA for approval

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. The CTDEEP Air permitting division has requested the following:
 - a) A letter identifying changes to the sampling program. No new permit equivalency application will be required.
 - b) Daily PID readings on influent and effluent for determining DRE and assessing efficiency. They would like Continuous Emissions Monitoring (CEM), but daily PID is fine.
 - c) Emissions to continue to be treated, during cool down period, until the influent concentration drops below 2 lbs/hr (10 tons/year) of hazardous air pollutants (HAPs).
 - d) Ultra-low sulfur diesel should be used in emergency generator was present on-site.

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, January 15, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

January 15, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Heater circuit testing
 - 2) VEW piping
 - 3) Grounding
 - 4) PMP piping
 - 5) Equipment installation
 - 6) Gas, electric, and water line trenching-complete

III) Safety / Housekeeping

- a) Safety Summary during ISTR wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical and Gas Service

VII) New Action Items

- a) Recent security breach on-site
- b) Additional security on-site
- c) Requests from CTDEEP Air permitting division

VIII) Other Business

- a) The next progress meeting is Wednesday, January 22, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Ryan Malone, Robin Swift, Karen Lumino

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: January 21, 2014

On January 15, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Derek LaRosee, Tim Mahoney
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- USEPA –Eva Davis
- CTDEEP-Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the December 8, 2013 meeting was distributed on January 15, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) Currently working on grounding and reworking stolen heater circuits and will most likely begin circuit testing next week
 - b) Have completed VEW piping with the exception of one section that is located in the path of traffic. That section will be completed just prior to startup
 - c) All PMP’s for Phase I have been laid out and testing Phase II is currently being finalized.
 - d) Equipment is currently being connected on the equipment pad.
 - e) Trenching and welding of pipe for gas, water, and electric lines has been completed and tested.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) There has been an emphasis on additional safety and housekeeping measures that have taken place due to the winter weather and the injury of a contractor visiting the site to give a quote for security.

- b) It was noted that the cap has become very slippery because of the weather conditions on-site, extra precautions should be taken when walking on the cap.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all of the VEW connections and heater box wiring connections have been inspected and it appears to be consistent with the design drawings.

VI. Engineering and Design Items

- A. The revised RAWP has been submitted to EPA for approval, EPA is currently reviewing the RAWP and will submit additional comments ASAP.
- B. TerraTherm is currently working with the Southington and CL&P to resolve a electrical load issue caused by a insufficiently sized feeder line.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. The CTDEEP Air permitting division has requested the following:
 - a) A letter identifying changes to the sampling program. No new permit equivalency application will be required.
 - b) Daily PID readings on influent and effluent for determining DRE and assessing efficiency. They would like Continuous Emissions Monitoring (CEM), but daily PID is fine.
 - c) Emissions to continue to be treated, during cool down period, until the influent concentration drops below 2 lbs/hr (10 tons/year) of hazardous air pollutants (HAPs).
 - d) Ultra-low sulfur diesel should be used in emergency generator was present on-site.
- B. Weston is currently working on the installation of a new vault for the force main and the redevelopment of the NCTRA 2 wells.

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, January 22, 2014.



de maximis, inc.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

January 22, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Heater circuit testing
 - 2) Heater circuit reinstall
 - 3) VEW piping
 - 4) Grounding
 - 5) PMP piping
 - 6) Equipment installation

III) Safety / Housekeeping

- a) Safety Summary during ISTR wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical service
- b) Gas Service

VII) New Action Items

- a) Additional security on-site
- b) NCTRA 2 well redevelopment

VIII) Other Business

- a) The next progress meeting is Wednesday, January 29, 2013, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Shannon Pociu, Michael Skowronek

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: January 29, 2014

On January 22, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Kevin Crowder
- USEPA –Eva Davis, Karen Lumino
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the January 15, 2014 meeting was distributed on January 22, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) Waiting on additional wire to replace heater circuits that had been stolen
 - b) Currently testing heater circuits
 - c) VEW piping is 98% complete the remaining to be completed closer to start-up
 - d) Equipment is currently being connected on the equipment pad, the oxidizer needs one more connection for all duct work to be completed
 - e) Electrician (ducci) is currently running grounding wire and HR to FTR

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been an emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications and that they had been provided with a manual on the oxidizer to perform QA checks.

VI. Engineering and Design Items

- A. We have received some comments from the EPA regarding the revised RAWP and are currently preparing a response.
- B. Yankee gas has approval from the town of Southington to complete the portion of gas line across the bridge on Lazy Lane. They are currently waiting on parts so that they can schedule the work. We are currently working with the town of Southington and Yankee gas to get approval of the gas line that was installed on the property in 2010.
- C. Additional power will be needed to power the well field or extend treatment time. Options are currently being explored.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. RW-13 and RW-14 were redeveloped and the wells were fitted with slightly higher pressure pumps. The wells are can currently pump 47 gpm, but have been throttled back to 35 gpm.

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, January 22, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

January 29, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Heater circuit testing
 - 2) Heater circuit reinstall
 - 3) VEW piping
 - 4) Grounding
 - 5) PMP piping
 - 6) Equipment installation

III) Safety / Housekeeping

- a) Safety Summary during ISTR wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical service
- b) Gas Service

VII) New Action Items

- a) Additional security on-site

VIII) Other Business

- a) The next progress meeting is Wednesday, February 5, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Kevin Crowder

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: February 11, 2014

On January 29, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Michael Skowronek
- USEPA –Eva Davis, Karen Lumino
- CTDEEP - Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the January 22, 2014 meeting were distributed on January 29, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) Completed the reinstall of the stolen heater circuits
 - b) Currently testing heater circuits
 - c) VEW piping is 98% complete the remaining to be completed closer to start-up
 - d) Equipment is currently being connected on the equipment pad
 - e) Electrician (Ducci) is currently running grounding wire and HR to FTR and tying in SCR to the substation and transformer

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications and that the heater reinstall has gone according to plans

VI. Engineering and Design Items

- A. We have received some comments from the EPA regarding the revised RAWP and are currently preparing a response.
- B. Yankee gas has approval from the town of Southington to complete the portion of gas line across the bridge on Lazy Lane. They are currently waiting on parts so that they can schedule the work. We are currently working with the town of Southington and Yankee gas to get approval of the gas line that was installed on the property in 2010.
- C. Additional power will be needed to power the well field or extend treatment time. Options are currently being explored.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, February 5, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

February 12, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Work remaining in wellfield
 - 2) Grounding
 - 3) Equipment installation
 - 4) Testing

III) Safety / Housekeeping

- a) Safety Summary during ISTR wellfield Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical service
- b) Gas Service

VII) New Action Items

- a) None

VIII) Other Business

- a) The next progress meeting is Wednesday, February 19, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Kevin Crowder, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: February 19, 2014

On February 12, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Michael Skowronek
- USEPA –Eva Davis, Karen Lumino
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the January 29, 2014 meeting were distributed on February 5, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) VEW piping is 98% complete the remaining to be completed within the next two weeks.
 - b) Equipment is currently being connected on the equipment pad as it arrives onsite.
 - c) Electrician (Ducci) is currently running grounding wire and HR to FTR and tying in SCR to the substation and transformer, they will continue to complete connections to equipment as it is delivered to the site.
 - d) Delivery and assembly of remaining process equipment including: Air stripper, moisture separator, knock out, vapor carbon vessels, liquid carbon vessels, booster pump water supply (softener) skid, caustic tank, interconnecting piping, and flame analyzer.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications

VI. Engineering and Design Items

- A. We have received some comments from the EPA regarding the revised RAWP and are currently preparing a response.
- B. Yankee gas has approval from the town of Southington to complete the portion of gas line across the bridge on Lazy Lane. They are currently waiting on parts so that they can schedule the work. We are currently working with the town of Southington and Yankee gas to get approval of the gas line that was installed on the property in 2010.
- C. The redesign of the wellfield has caused an increase in required power demand, from 100amp to 140amp. We are currently working with CL&P to secure a budget, schedule to get the required power & if the current power supply can be steady during construction so that it can be used for shakedown of the system.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. None

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, February 19, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

February 26, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Work remaining in wellfield
 - 2) Equipment installation
 - 3) Testing

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical service
- b) Gas Service
- c) Response to comments

VII) New Action Items

- a) None

VIII) Other Business

- a) The next progress meeting is Wednesday, March 4, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: March 5, 2014

On February 26, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Michael Skowronek, Kevin Crowder
- USEPA –Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the February 12, 2014 meeting were distributed on February 19, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) VEW piping is complete.
 - b) Equipment is currently being connected on the equipment pad as it arrives onsite.
 - c) Electrician (Ducci) continues to complete connections to equipment as it is delivered to the site.
 - d) Continue to receive deliveries of and assemble remaining process equipment, this includes: Air stripper, moisture separator, knock out, vapor carbon vessels, liquid carbon vessels, booster pump water supply (softener) skid, caustic tank, interconnecting piping, and flame analyzer.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications

VI. Engineering and Design Items

- A. We have submitted a revised sampling table and response to comments to comments received from the EPA regarding the revised RAWP. The intention of the response was to address discrepancies in the RAWP & O&M plan and to update the sampling matrix
- B. Yankee gas has approval from the town of Southington to complete the portion of gas line across the bridge on Lazy Lane. They are currently waiting on parts so that they can schedule the work. We are currently working with the town of Southington and Yankee gas to get approval of the gas line that was installed on the property in 2010.
- C. The redesign of the wellfield has caused an increase in required power demand, from 100amp to 140amp. We are currently working with CL&P to schedule and expedite construction to get the required power. The current power supply can be used during shakedown of the system.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. Start reviewing the website that will be used to view data during thermal operations.
<http://www.think-thermal.com/>, username: srsnegroup, password: cleanup2014

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, March 5, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

March 5, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction Schedule “Two Week Look-Ahead”
 - 1) Work remaining in wellfield
 - 2) Equipment installation
 - 3) Testing

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical service
- b) Gas Service
- c) Response to comments
- d) Website: <http://www.think-thermal.com/>

VII) New Action Items

- a) None

VIII) Other Business

- a) The next progress meeting is Wednesday, March 12, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Karen Lumino

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: March 12, 2014

On March 5, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Michael Skowronek, Kevin Crowder
- USEPA –Eva Davis
- CTDEEP- Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the February 26, 2014 meeting were distributed on March 5, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and proposed ISTR construction schedule “two week look ahead” is summarized below:
- a) Vapor piping and process equipment placement will be completed within the next few days.
 - b) Currently working on liquid and compressed air piping and manifold and electrical connections.
 - c) Electrician (Ducci) continues to complete connections to equipment as it is put in place.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications
 - b) IQAT requests piping diagrams and updated drawings

VI. Engineering and Design Items

- A. We have submitted a revised sampling table and response to comments to comments received from the EPA regarding the revised RAWP. The intention of the response was to address discrepancies in the RAWP & O&M plan and to update the sampling matrix. EPA has reviewed and is comfortable with the responses, but has a few questions and has requested a few minor revisions.
- B. Yankee gas has approval from the town of Southington to complete the portion of gas line across the bridge on Lazy Lane. Work has started.
- C. We are currently working with the town of Southington and Yankee gas to get approval of the gas line that was installed on the property in 2010. An inspection of the gas line and review of the pressure test, by the Town's mechanical inspector, is scheduled for Monday, March 10, 2014.
- D. The redesign of the wellfield has caused an increase in required power demand, from 100amp to 140amp. We are currently working with CL&P to schedule and expedite construction to get the required power. The current power supply can be used during shakedown of the system. An inspection of the electrical progress and meter box, by the Town's electrical inspector, is scheduled for Monday, March 10, 2014.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. None

IX. New Action Items

- A. Start reviewing the website that will be used to view data during thermal operations. TerraTherm will plan to give a "tour" of the website during the call on March 12, 2014.
<http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, March 12, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

March 12, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Schedule
 - 1) Utilities
 - Pole connection to transformer & CL&P account # (3/17/14)
 - Energize (3/19/14) (allows for start of shakedown)
 - CL&P electrical upgrade construction (3/19/14) (allow for full power operation)
 - Completion of gas line across bridge/installation of gas meter (3/21/14)
 - 2) Construction
 - Cooling tower and generator delivery (3/18/14)
 - Shakedown/troubleshooting~3weeks (3/19/14)
- b) Potential Start-up (4/10/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical service
- b) Gas Service
- c) Website: <http://www.think-thermal.com/>
 - username: srsnegroup
 - password: cleanup2014

VII) New Action Items

- a) None

VIII) Other Business

- a) The next progress meeting is Wednesday, March 19, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Michael Skowronek

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: March 18, 2014

On March 12, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Kevin Crowder
- USEPA –Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the March 5, 2014 meeting were distributed on March 12, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Utilities
 - Town approval of on-site gas line (3-10-14)
 - Town approval of on-site electrical work (3-10-14)
 - CL&P electrical upgrade construction to allow for necessary electrical demand (3-19-14)
 - Completion of gas line across bridge (3-21-14)
 - Installation of gas meter (3-21-14)
 - b) Construction
 - Cooling tower and generator delivery (3-18-14)
 - Complete remaining construction including: constructing ramps and stairs, electrical connections, bonding and grounding, QA/QC of electrical connections, SCR testing, motor rotation testing, level switch testing and dilution air testing.
 - Shakedown/troubleshooting ~3weeks (starting 3-19-14)
 - c) Potential Start-up (4-10-14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
 - a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.
 - b) The local fire and emergency responders will be invited to tour the site and become familiar with the location of emergency switches.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications

VI. Engineering and Design Items

- A. A walkthrough of the website (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab;
 - c) Linking Project Portal environmental data to this.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. The 5 year comprehensive groundwater sampling event will be scheduled for June 2014. As a result of additional well installation and sampling since the last 5 year review, a spreadsheet with a comprehensive list of wells to be sampled, sampling methods and parameters to be sampled for will be developed and submitted to the EPA for approval.

IX. New Action Items

- A. Continue to review the website and provide TerraTherm comments.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, March 19, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

March 19, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (3/21/14)
 - Energize (3/24/14) (allows for start of shakedown)
 - CL&P electrical upgrade construction (3/20/14) (allow for full power operation)
 - Completion of gas line across bridge/installation of gas meter (3/21/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting~3weeks (3/24/14)
- b) Potential Start-up (4/14/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Electrical service
- b) Gas Service
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) None

VIII) Other Business

- a) The next progress meeting is Wednesday, March 26, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Karen Lumino

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: March 26, 2014

On March 19, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Robin Swift, Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Kevin Crowder, Michael Skowronek
- USEPA –Eva Davis,
- CTDEEP- Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the March 12, 2014 meeting were distributed on March 19, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Utilities
 - Town approval of on-site gas line (3-10-14)
 - Town approval of on-site electrical work (3-10-14)
 - Pole connection to transformer (3-18-14)
 - CL&P electrical upgrade construction to allow for necessary electrical demand (pending)
 - Completion of gas line across bridge (3-21-14)
 - Installation of gas meter (3-27-14)
 - b) Construction
 - Cooling tower and generator delivery (3-18-14)
 - Complete remaining construction including: constructing ramps and stairs, electrical connections, bonding and grounding, QA/QC of electrical connections, SCR testing, motor rotation testing, level switch testing and dilution air testing.
 - Shakedown/troubleshooting ~3weeks (starting 3-24-14)
 - c) Potential Start-up (4-14-14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
 - a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.
 - b) The local fire and emergency responders are scheduled to tour the site the week of March 24th and become familiar with potential hazards and the locations of emergency switches.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. No alerts or alarms have been noted for this time period.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) ARCADIS continues to oversee perimeter air monitoring. Readings have been taken consistent with the work plan during working hours and no elevated readings were observed this period.
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications

VI. Engineering and Design Items

- A. Continue to review and submit suggestions to the website (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab;
 - c) Linking Project Portal environmental data to this.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. The 5 year comprehensive groundwater sampling event will be scheduled for June 2014. As a result of additional well installation and sampling since the last 5 year review, a spreadsheet with a comprehensive list of wells to be sampled, sampling methods and parameters to be sampled for has been developed and will be finalized and submitted to the EPA for approval.

IX. New Action Items

- A. Continue to review the website and provide TerraTherm comments.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, March 26, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

March 26, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (3/28/14)
 - Energize (3/31/14) (allows for start of shakedown)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge/installation of gas meter (3/21/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting~3weeks (3/31/14)
- b) Potential Start-up (4/21/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) None

VIII) Other Business

- a) The 5 year comprehensive groundwater sampling event has been tentatively scheduled to start on June 9, 2014.

- b) Weston Solutions has started work completing the new valve vault that will enable one of two spare forcemains to be placed into service during O&M.
- c) The next progress meeting is Wednesday, March 26, 2014, 2:00pm (EST)

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

April 2, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (4/2/14)
 - Energize (4/2/14) (allows for start of shakedown)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge/installation of gas meter (3/21/14)
 - Installation of gas meter (4/8/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting~3weeks (3/31/14)
- b) Potential Start-up (4/28/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
 - 1) Perimeter Air Monitoring
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) None

VIII) Other Business

- a) The 5 year comprehensive groundwater sampling event has been tentatively scheduled to start on June 9, 2014.

- b) Weston Solutions has started work completing the new valve vault that will enable one of two spare forcemains to be placed into service during O&M.
- c) The next progress meeting is Wednesday, April 9, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Karen Lumino, Robin Swift,

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: April 8, 2014

On April 2, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Derek LaRosee, Tim Mahoney
- ARCADIS - Jeff Holden, Kevin Crowder, Michael Skowronek
- USEPA –Eva Davis
- CTDEEP- Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the March 19, 2014 meeting were distributed on March 26, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Utilities
 - Town approval of on-site gas line (3-10-14)
 - Town approval of on-site electrical work (3-10-14)
 - Pole connection to transformer (3-18-14)
 - CL&P electrical upgrade construction to allow for necessary electrical demand (pending)
 - Completion of gas line across bridge (3-21-14)
 - Installation of gas meter (4-8-14)
 - b) Construction
 - Cooling tower and generator delivery (3-18-14)
 - Complete remaining construction including: constructing ramps and stairs, electrical connections, bonding and grounding, QA/QC of electrical connections, SCR testing, motor rotation testing, level switch testing and dilution air testing.
 - Shakedown/troubleshooting using the generator ~3weeks (starting 3-31-14)
 - c) Potential Start-up (4-28-14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
 - a) TerraTherm noted that there were no safety incidents reported during this period, there has been and emphasis on additional safety and housekeeping measures that have taken place because of the winter weather.
 - b) The local fire and emergency responders have been touring the site this week to become familiar with potential hazards and the locations of emergency switches.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. PID's have been sent out for service prior to start-up therefore air monitoring is not currently being performed.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications

VI. Engineering and Design Items

- A. Continue to review and submit suggestions to the website (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. The 5 year comprehensive groundwater sampling event has been scheduled to start June 9, 2014. As a result of additional well installation and sampling since the last 5 year review, a spreadsheet with a comprehensive list of wells to be sampled, sampling methods and parameters to be sampled for has been submitted to the EPA for approval.
- B. Weston Solutions has started work installing the new valve vault that will enable one of the two spare forcemains to be used during O&M.
- C. We have requested to have 1,4 dioxane to be run on samples taken from the ISTR monitoring wells.

IX. New Action Items

- A. Continue to review the website and provide TerraTherm comments.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, April 9, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

April 9, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Progress and Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (4/2/14)
 - Energize (4/8/14)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge (3/21/14)
 - Installation of gas meter (4/21/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting using generator~3weeks (3/31/14)
- b) Potential Start-up (4/28/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) None

VIII) Other Business

- a) RAWP and O&M Approval-Community Response Plan-Southington reverse 911 system
<http://southington.patch.com/groups/politics-and-elections/p/residents-will-have-control-over-own-reverse-911-notifications>

<http://www.southington.org/content/17214/22251/default.aspx>

- b) The 5 year comprehensive groundwater sampling event has been tentatively scheduled to start on June 9, 2014.
- c) Weston Solutions has completed work on the new valve vault that will enable one of two spare forcemains to be placed into service during O&M. They are currently scheduling the installation of RW-15.
- d) The next progress meeting is Wednesday, April 16, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Jeff Holden

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: April 15, 2014

On April 9, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the *de maximis, inc.* (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Derek LaRosee, Tim Mahoney, Robin Swift
- ARCADIS - Kevin Crowder, Michael Skowronek
- USEPA –Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the April 2, 2014 meeting were distributed on April 9, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Utilities
 - Pole connection to transformer (3-18-14)
 - Energize of CL&P electrical upgrade and receive account # (4/8/14)
 - Installation of gas manifold (4-16-14)
 - Installation of gas meter (4-21-14)
 - b) Construction
 - Shakedown/troubleshooting using the generator ~3weeks (starting 3-31-14)
 - Water supply (softener) skid delivery (4-11-14)
 - Caustic tank installation (4-11-14)
 - c) Potential Start-up (4-28-14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.

- B. TerraTherm noted that there were no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during shakedown and startup of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. PID's have been sent out for service prior to start-up therefore air monitoring is not currently being performed.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications

VI. Engineering and Design Items

- A. Continue to review and submit suggestions to the website (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.

VII. Identification of Problems that May Impede Planned Progress

- A. Weather

VIII. Other Business

- A. EPA and CTDEEP site is scheduled for Thursday, April 24, 2014 at 10am.
- B. EPA has tentatively approved the RAWP and O&M plan pending final changes and review regarding community response plan. EPA and CT DEEP have requested hardcopies and electronic copies of the documents once they are finalized.
- C. The 5 year comprehensive groundwater sampling event has been scheduled to start June 9, 2014. As a result of additional well installation and sampling since the last 5 year review, a spreadsheet with a comprehensive list of wells to be sampled, sampling methods and parameters to be sampled for has been submitted to the EPA for approval.
- D. Weston Solutions has completed installation of the new valve vault that will enable one of the two spare forcemains to be used during O&M. They are currently working on scheduling the installation of RW-15. A completion report will be submitted once the well is installed.
- E. ALPHA will be able to run 1,4 dioxane on the initial samples taken from the ISTR monitoring wells.

IX. New Action Items

- A. Continue to review the website and provide TerraTherm comments.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, April 16, 2014.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
April 16, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Progress and Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (4/8/14)
 - Energize (4/8/14)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge (3/21/14)
 - Installation of gas manifold (4-16-14)
 - Connection of manifold to gas line (4-17-14)
 - Installation of gas meter (4/21/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting ~3weeks (3/31/14)
 - Oxidizer shakedown (3-21-14)
 - Softener Skid and Caustic tank installation (4-11-14)
- b) Potential Start-up (5/5/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) None

VIII) Other Business

- a) EPA and CTDEEP are scheduled to visit the site on April 24, 2014 at 10am.
- b) The 5 year comprehensive groundwater sampling event has been tentatively scheduled to start on June 9, 2014.
- c) Weston Solutions has completed work on the new valve vault that will enable one of two spare forcemains to be placed into service during O&M. They are currently scheduling the installation of RW-15.
- d) The next progress meeting is Wednesday, April 23, 2014, 2:00pm (EST)

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
April 23, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Progress and Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (4/8/14)
 - Energize (4/8/14)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge (3/21/14)
 - Installation of gas manifold (4/16/14)
 - Connection of manifold to gas line (4/17/14)
 - Installation of gas meter (4/21/14)
 - Adjustment of gas regulators (4/24/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting ~3weeks (3/31/14)
 - Oxidizer shakedown (4/21/14)
 - Softener Skid and Caustic tank installation (4/11/14)
- b) Potential kickoff meeting (5/2/14)
- c) Potential Start-up (5/5/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) None

VIII) Other Business

- a) EPA and CTDEEP are scheduled to visit the site on April 24, 2014 at 10am.
- b) The 5 year comprehensive groundwater sampling event has been tentatively scheduled to start on June 9, 2014.
- c) Weston Solutions has completed work on the new valve vault that will enable one of two spare forcemains to be placed into service during O&M. They are currently scheduling the installation of RW-15.
- d) The next progress meeting is Wednesday, April 30, 2014, 2:00pm (EST)

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

April 29, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Progress and Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (4/8/14)
 - Energize (4/8/14)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge (3/21/14)
 - Installation of gas manifold (4/16/14)
 - Connection of manifold to gas line (4/17/14)
 - Installation of gas meter (4/21/14)
 - Adjustment of gas regulators (4/24/14)
 - Clean out of gas line (starting 4/29/14)
 - Re-start of gas and adjustment of meters (5/2/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting ~3weeks (3/31/14)
 - Oxidizer shakedown (4/21/14)
 - Softener Skid and Caustic tank installation (4/11/14)
- b) Potential kickoff meeting (5/5/14)
- c) Potential Start-up (5/8/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Weather

VI) Engineering and Design Items

- a) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup

password: cleanup2014

VII) New Action Items

- a) Finalize RAWP and O&M Plan

VIII) Other Business

- a) EPA and CTDEEP representatives visited the site on April 24, 2014.
- b) The 5 year comprehensive groundwater sampling event has been tentatively scheduled to start on June 9, 2014.
- c) Weston Solutions has completed work on the new valve vault that will enable one of two spare forcemains to be placed into service during O&M. They are currently scheduling the installation of RW-15.
- d) The next progress meeting is Wednesday, May 7, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Jeff Holden, Bruce Thompson, Eva Davis, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: May 6, 2014

On April 30, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker,
- TerraTherm, Inc (TerraTherm) –Derek LaRosee, Tim Mahoney, Robin Swift
- ARCADIS - Kevin Crowder, Michael Skowronek
- USEPA –Karen Lumino
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the April 9, 2014 meeting were distributed on April 16 & 23, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Utilities
 - Pole connection to transformer (3-18-14)
 - Energize of CL&P electrical upgrade and receive account # (4/8/14)
 - Installation of gas manifold (4-16-14)
 - Installation of gas meter (4-21-14)
 - Adjustment of gas regulators (4-24-14)
 - Clean out of blocked gas line (starting 4/30/14)
 - Re-start of gas and adjustment of meters (5/2/14)
 - b) Construction
 - Shakedown/troubleshooting using the generator ~3weeks (starting 3-31-14)
 - Water supply (softener) skid delivery (4-11-14)
 - Caustic tank installation (4-11-14)
 - Oxidizer shakedown (4/21/14)
 - Phase I SCR programming complete (4/29/14)
 - Interlock review of process equipment (starting 4/29/14)
 - c) Potential Start-up (5-8-14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there were no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during shakedown and startup of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The PID's that had been sent out for service prior to start-up, have been returned and air monitoring has been carried out since 4/22/14.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plan and specifications

VI. Engineering and Design Items

- A. Continue to review and submit suggestions to the website (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. EPA and CTDEEP personnel visited the site Thursday, April 24, 2014, comments received from DEEP and EPA staff have been very positive.
- B. EPA has the RAWP and O&M plan, the documents are currently being finalized. EPA and CT DEEP have requested hardcopies and electronic copies of the documents once they are finalized.
- C. The 5 year comprehensive groundwater sampling event has been scheduled to start June 9, 2014. As a result of additional well installation and sampling since the last 5 year review, a spreadsheet with a comprehensive list of wells to be sampled, sampling methods and parameters to be sampled for has been submitted to the EPA for approval.
- D. Weston Solutions has completed installation of the new valve vault that will enable one of the two spare force mains to be used during O&M. They are currently working on scheduling the installation of RW-15. A completion report will be submitted once the well is installed.

IX. New Action Items

- A. Continue to review the website and provide TerraTherm comments.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, April 16, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

May 14, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Progress and Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (4/8/14)
 - Energize (4/8/14)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge (3/21/14)
 - Installation of gas manifold (4/16/14)
 - Connection of manifold to gas line (4/17/14)
 - Installation of gas meter (4/21/14)
 - Adjustment of gas regulators (4/24/14)
 - Clean out of gas line (starting 4/29/14)
 - Re-start of gas and adjustment of meters (5/2/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting ~3weeks (3/31/14)
 - Softener Skid and Caustic tank installation (4/11/14)
 - Oxidizer shakedown (4/21/14)
 - Replacement of scrubber pumps seal (5/14/14)
 - Installation of replacement O2 sensor (5/14/14)
 - Final commissioning of oxidizer-tentative (5/21/14)
- b) Final inspection/walk-thru (5/15/14)
- c) Potential Start-up (5/15/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Problems during shakedown and startup

VI) Engineering and Design Items

- a) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Finalize RAWP and O&M Plan

VIII) Other Business

- a) The 5 year comprehensive groundwater sampling event has been scheduled to start on June 9, 2014.
- b) Weston Solutions has completed work on the new valve vault that will enable one of two spare forcemains to be placed into service during O&M. They are currently scheduling the installation of RW-15.
- c) The next progress meeting is Wednesday, May 21, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Jeff Holden

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: May 21, 2014

On May 14, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Derek LaRosee, Tim Mahoney, Robin Swift
- ARCADIS - Kevin Crowder, Michael Skowronek
- USEPA –Karen Lumino, Eva Davis
- CTDEEP- Shannon Pociu
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the May 7, 2014 meeting were distributed on May 14, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Utilities
 - Pole connection to transformer (3-18-14)
 - Energize of CL&P electrical upgrade and receive account # (4/8/14)
 - Installation of gas manifold (4-16-14)
 - Installation of gas meter (4-21-14)
 - Adjustment of gas regulators (4-24-14)
 - Clean out of blocked gas line (starting 4/30/14)
 - Re-start of gas and adjustment of meters (5/2/14)
 - b) Construction
 - Shakedown/troubleshooting using the generator ~3weeks (starting 3-31-14)
 - Water supply (softener) skid delivery (4-11-14)
 - Caustic tank installation (4-11-14)
 - Oxidizer shakedown (4/21/14)
 - Phase I SCR programming complete (4/29/14)
 - Interlock review of process equipment (starting 4/29/14)
 - Replacement of scrubber pump seal (5/14/14)

- Installation of replacement O2 sensor (5/14/14)
- Final commissioning of oxidizer (tentative 5-21-14)
- c) Potential Start-up (5-15-14)
- d) TerraTherm continues to go through interlocks and the P&ID. Liquid is running through the system and they have been bringing in dilution air in preparation of startup.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there were no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during shakedown and startup of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The PID's that had been sent out for service prior to start-up, have been returned and air monitoring has been carried out since 4/22/14.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) No QC issues were noted during this period.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans, specifications and has been following the interlock table and P&ID diagrams.

VI. Engineering and Design Items

- A. Continue to review and submit suggestions to the website (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. EPA has the RAWP and O&M plan, the documents are currently being finalized. EPA and CT DEEP have requested hardcopies and electronic copies of the documents once they are finalized.
- B. The 5 year comprehensive groundwater sampling event has been scheduled to start June 9, 2014. As a result of additional well installation and sampling since the last 5 year review, a spreadsheet with a comprehensive list of wells to be sampled, sampling methods and parameters to be sampled for has been submitted to the EPA for approval.
- C. Weston Solutions has completed installation of the new valve vault that will enable one of the two spare force mains to be used during O&M. They are currently working on scheduling the installation of RW-15. A completion report will be submitted once the well is installed.

IX. New Action Items

- A. Continue to review the website and provide TerraTherm comments.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, May 21, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

May 21, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) ISTR Construction-Critical Path Progress and Schedule
 - 1) Utilities
 - Pole connection to transformer (3/18/14)
 - CL&P account # (4/8/14)
 - Energize (4/8/14)
 - CL&P electrical upgrade construction (3/27/14) (allow for full power operation)
 - Completion of gas line across bridge (3/21/14)
 - Installation of gas manifold (4/16/14)
 - Connection of manifold to gas line (4/17/14)
 - Installation of gas meter (4/21/14)
 - Adjustment of gas regulators (4/24/14)
 - Clean out of gas line (starting 4/29/14)
 - Re-start of gas and adjustment of meters (5/2/14)
 - 2) Construction
 - Generator delivery (3/18/14)
 - Cooling tower (3/19/14)
 - Shakedown/troubleshooting ~3weeks (3/31/14)
 - Softener Skid and Caustic tank installation (4/11/14)
 - Oxidizer shakedown (4/21/14)
 - Replacement of scrubber pumps seal (5/14/14)
 - Installation of replacement O2 sensor (5/14/14)
- b) Final inspection/walk-thru (5/15/14)
- c) Start-up (5/15/14)
- d) Final commissioning of oxidizer (5/29/14)
- e) SCRs at design kW output (5/22/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) Attached is the most updated sampling schedule
- b) TerraTherm is currently working on getting most recent data on uploaded to the website
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Finalize RAWP and O&M Plan

VIII) Other Business

- a) The 5 year comprehensive groundwater sampling event has been scheduled to start on June 9, 2014.
- b) Weston Solutions has completed work on the new valve vault that will enable one of two spare forcemains to be placed into service during O&M. They are currently scheduling the installation of RW-15.
- c) The next progress meeting is Wednesday, May 28, 2014, 2:00pm (EST)

				Influent Vapor			Effluent Vapor		Influent Vapor	Effluent Vapor	Wellfield Vapor	Progress Soil Phase I	Progress Soil Phase 2	System Liquid	System Liquid	System Liquid	System Liquid	System Liquid	Confirmation Soil	Groundwater
Phase	Number of Days	Day	Date	Oxidizer Influent			Oxidizer Effluent		GAC Influent	GAC Effluent	Manifold Legs, locations TBD (Distinguish Phase 1/2)	Hot Soil Sampling, locations TBD	Hot Soil Sampling, locations TBD	GAC Influent (Condensate)	GAC Midfluent	GAC Midfluent	GAC Effluent	GAC Effluent	Hot Soil Sampling, locations TBD	Monitoring Wells
				Vapor			Vapor		Vapor	Vapor	Vapor	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				EPA TO-15	PID	Prevox Flammability Analyzer	EPA TO-15	PID	PID	PID	PID	EPA 8260B VOCs	EPA 8260B VOCs	EPA 8260B VOCs	Headspace PID	EPA 8260B VOCs	Full suite: EPA 624 VOCs including MTBE, O&G, Metals, 625 SVOCs, 8081 OC Pesticides, PCBs, Herbicides, Total & Amenable Cyanide, TSS, pH	EPA 624 VOCs, TSS, pH	EPA 8260B VOCs	EPA 8260B VOCs
				Summa Canister	Tedlar bag	Online	Summa Canister	Tedlar bag	Tedlar bag	Tedlar bag	Tedlar bags	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	ARCADIS	ARCADIS
				ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	Onsite Analysis	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Alpha Analytical	Alpha Analytical
				Grab weekly	Grab daily (weekdays)	Real Time/Continuous	Grab monthly (weekly during peak: Day 40-150)	Grab daily (weekdays)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab weekly during Phase 1 & 2 overlap	Grab @ 60 days (~15 locations) and 95 days (~35 locations)	Grab @ 64 days (~15 locations) and 99 days (~35 locations)	Grab weekly	Grab weekly	Grab weekly	Grab once within 30 days of startup	Grab monthly (after first month)	Grab at end of Phase 1 and end of Phase 2	Baseline (monthly thereafter)
Start Phase I Operations (60 days)	1	Thursday	5/15/14		X	X		X	(X)	(X)										
	2	Friday	5/16/14	X	X	X	X	X	(X)	(X)				X	X	X	X			
	3	Saturday	5/17/14			X														
	4	Sunday	5/18/14			X														
	5	Monday	5/19/14		X	X		X	(X)	(X)										
	6	Tuesday	5/20/14	X	X	X		X	(X)	(X)				X	X	X				
	7	Wednesday	5/21/14		X	X		X	(X)	(X)										
	8	Thursday	5/22/14		X	X		X	(X)	(X)										
	9	Friday	5/23/14		X	X		X	(X)	(X)										
	10	Saturday	5/24/14			X														
	11	Sunday	5/25/14			X														
	12	Monday	5/26/14		X	X		X	(X)	(X)										
	13	Tuesday	5/27/14	X	X	X		X	(X)	(X)				X	X	X				
	14	Wednesday	5/28/14		X	X		X	(X)	(X)										
	15	Thursday	5/29/14		X	X		X	(X)	(X)										
	16	Friday	5/30/14		X	X		X	(X)	(X)										
	17	Saturday	5/31/14			X														
	18	Sunday	6/1/14			X														
	19	Monday	6/2/14		X	X		X	(X)	(X)										
	20	Tuesday	6/3/14	X	X	X		X	(X)	(X)				X	X	X				
	21	Wednesday	6/4/14		X	X		X	(X)	(X)										
	22	Thursday	6/5/14		X	X		X	(X)	(X)										
	23	Friday	6/6/14		X	X		X	(X)	(X)										
	24	Saturday	6/7/14			X														
	25	Sunday	6/8/14			X														
	26	Monday	6/9/14		X	X		X	(X)	(X)										
	27	Tuesday	6/10/14	X	X	X		X	(X)	(X)				X	X	X				
	28	Wednesday	6/11/14		X	X		X	(X)	(X)										
	29	Thursday	6/12/14		X	X		X	(X)	(X)										
	30	Friday	6/13/14		X	X		X	(X)	(X)										
	31	Saturday	6/14/14			X														
	32	Sunday	6/15/14			X														
	33	Monday	6/16/14		X	X		X	(X)	(X)										
	34	Tuesday	6/17/14	X	X	X	X	X	(X)	(X)				X	X	X		X		X
	35	Wednesday	6/18/14		X	X		X	(X)	(X)										
	36	Thursday	6/19/14		X	X		X	(X)	(X)										
	37	Friday	6/20/14		X	X		X	(X)	(X)										
	38	Saturday	6/21/14			X														
	39	Sunday	6/22/14			X														
	40	Monday	6/23/14		X	X		X	(X)	(X)										
	41	Tuesday	6/24/14	X	X	X	X	X	(X)	(X)				X	X	X				
	42	Wednesday	6/25/14		X	X		X	(X)	(X)										
	43	Thursday	6/26/14		X	X		X	(X)	(X)										
	44	Friday	6/27/14		X	X		X	(X)	(X)										
	45	Saturday	6/28/14			X														
	46	Sunday	6/29/14			X														
	47	Monday	6/30/14		X	X		X	(X)	(X)										
	48	Tuesday	7/1/14	X	X	X	X	X	(X)	(X)				X	X	X				
	49	Wednesday	7/2/14		X	X		X	(X)	(X)										
	50	Thursday	7/3/14		X	X		X	(X)	(X)										
	51	Friday	7/4/14		X	X		X	(X)	(X)										
	52	Saturday	7/5/14			X														
	53	Sunday	7/6/14			X														
	54	Monday	7/7/14		X	X		X	(X)	(X)										
	55	Tuesday	7/8/14	X	X	X	X	X	(X)	(X)				X	X	X				
	56	Wednesday	7/9/14		X	X		X	(X)	(X)										
	57	Thursday	7/10/14		X	X		X	(X)	(X)										
	58	Friday	7/11/14		X	X		X	(X)	(X)										
	59	Saturday	7/12/14			X														
	60	Sunday	7/13/14			X						X								

				Influent Vapor			Effluent Vapor		Influent Vapor	Effluent Vapor	Wellfield Vapor	Progress Soil Phase I	Progress Soil Phase 2	System Liquid	System Liquid	System Liquid	System Liquid	System Liquid	Confirmation Soil	Groundwater
Phase	Number of Days	Day	Date	Oxidizer Influent			Oxidizer Effluent		GAC Influent	GAC Effluent	Manifold Legs, locations TBD (Distinguish Phase 1/2)	Hot Soil Sampling, locations TBD	Hot Soil Sampling, locations TBD	GAC Influent (Condensate)	GAC Midfluent	GAC Midfluent	GAC Effluent	GAC Effluent	Hot Soil Sampling, locations TBD	Monitoring Wells
				Vapor			Vapor		Vapor	Vapor	Vapor	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				EPA TO-15	PID	Prevox Flammability Analyzer	EPA TO-15	PID	PID	PID	PID	EPA 8260B VOCs	EPA 8260B VOCs	EPA 8260B VOCs	Headspace PID	EPA 8260B VOCs	Full suite: EPA 624 VOCs including MTBE, O&G, Metals, 625 SVOCs, 8081 OC Pesticides, PCBs, Herbicides, Total & Amenable Cyanide, TSS, pH	EPA 624 VOCs, TSS, pH	EPA 8260B VOCs	EPA 8260B VOCs
				Summa Canister	Tedlar bag	Online	Summa Canister	Tedlar bag	Tedlar bag	Tedlar bag	Tedlar bags	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	ARCADIS	ARCADIS
				ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	Onsite Analysis	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Alpha Analytical	Alpha Analytical
				Grab weekly	Grab daily (weekdays)	Real Time/Continuous	Grab monthly (weekly during peak: Day 40-150)	Grab daily (weekdays)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab weekly during Phase 1 & 2 overlap	Grab @ 60 days (~15 locations) and 95 days (~35 locations)	Grab @ 64 days (~15 locations) and 99 days (~35 locations)	Grab weekly	Grab weekly	Grab weekly	Grab once within 30 days of startup	Grab monthly (after first month)	Grab at end of Phase 1 and end of Phase 2	Baseline (monthly thereafter)
Start Phase 2, Continue Phase 1 (75 days)	61	Monday	7/14/14		X	X		X	(X)	(X)										
	62	Tuesday	7/15/14	X	X	X	X	X	(X)	(X)				X	X	X		X		X
	63	Wednesday	7/16/14		X	X		X	(X)	(X)										
	64	Thursday	7/17/14		X	X		X	(X)	(X)										
	65	Friday	7/18/14		X	X		X	(X)	(X)	X									
	66	Saturday	7/19/14			X														
	67	Sunday	7/20/14			X														
	68	Monday	7/21/14		X	X		X	(X)	(X)										
	69	Tuesday	7/22/14	X	X	X	X	X	(X)	(X)				X	X	X				
	70	Wednesday	7/23/14		X	X		X	(X)	(X)										
	71	Thursday	7/24/14		X	X		X	(X)	(X)										
	72	Friday	7/25/14		X	X		X	(X)	(X)	X									
	73	Saturday	7/26/14			X														
	74	Sunday	7/27/14			X														
	75	Monday	7/28/14		X	X		X	(X)	(X)										
	76	Tuesday	7/29/14	X	X	X	X	X	(X)	(X)				X	X	X				
	77	Wednesday	7/30/14		X	X		X	(X)	(X)										
	78	Thursday	7/31/14		X	X		X	(X)	(X)										
	79	Friday	8/1/14		X	X		X	(X)	(X)	X									
	80	Saturday	8/2/14			X														
	81	Sunday	8/3/14			X														
	82	Monday	8/4/14		X	X		X	(X)	(X)										
	83	Tuesday	8/5/14	X	X	X	X	X	(X)	(X)				X	X	X				
	84	Wednesday	8/6/14		X	X		X	(X)	(X)										
	85	Thursday	8/7/14		X	X		X	(X)	(X)										
	86	Friday	8/8/14		X	X		X	(X)	(X)	X									
	87	Saturday	8/9/14			X														
	88	Sunday	8/10/14			X														
	89	Monday	8/11/14		X	X		X	(X)	(X)										
	90	Tuesday	8/12/14	X	X	X	X	X	(X)	(X)				X	X	X		X		X
	91	Wednesday	8/13/14		X	X		X	(X)	(X)										
	92	Thursday	8/14/14		X	X		X	(X)	(X)										
	93	Friday	8/15/14		X	X		X	(X)	(X)	X									
	94	Saturday	8/16/14			X														
	95	Sunday	8/17/14			X														
	96	Monday	8/18/14		X	X		X	(X)	(X)										
	97	Tuesday	8/19/14	X	X	X	X	X	(X)	(X)				X	X	X				
	98	Wednesday	8/20/14		X	X		X	(X)	(X)										
	99	Thursday	8/21/14		X	X		X	(X)	(X)										
	100	Friday	8/22/14		X	X		X	(X)	(X)	X									
	101	Saturday	8/23/14			X														
	102	Sunday	8/24/14			X														
	103	Monday	8/25/14		X	X		X	(X)	(X)										
	104	Tuesday	8/26/14	X	X	X	X	X	(X)	(X)				X	X	X				
	105	Wednesday	8/27/14		X	X		X	(X)	(X)										
	106	Thursday	8/28/14		X	X		X	(X)	(X)										
	107	Friday	8/29/14		X	X		X	(X)	(X)	X									
	108	Saturday	8/30/14			X														
	109	Sunday	8/31/14			X														
	110	Monday	9/1/14		X	X		X	(X)	(X)										
	111	Tuesday	9/2/14	X	X	X	X	X	(X)	(X)				X	X	X				
	112	Wednesday	9/3/14		X	X		X	(X)	(X)										
	113	Thursday	9/4/14		X	X		X	(X)	(X)										
	114	Friday	9/5/14		X	X		X	(X)	(X)	X									
	115	Saturday	9/6/14			X														
	116	Sunday	9/7/14			X														
	117	Monday	9/8/14		X	X		X	(X)	(X)										
	118	Tuesday	9/9/14	X	X	X	X	X	(X)	(X)				X	X	X				
	119	Wednesday	9/10/14		X	X		X	(X)	(X)										
	120	Thursday	9/11/14		X	X		X	(X)	(X)										
Time Phase 1 (75 days)																				

				Influent Vapor			Effluent Vapor		Influent Vapor	Effluent Vapor	Wellfield Vapor	Progress Soil Phase 1	Progress Soil Phase 2	System Liquid	System Liquid	System Liquid	System Liquid	System Liquid	Confirmation Soil	Groundwater
Phase	Number of Days	Day	Date	Oxidizer Influent			Oxidizer Effluent		GAC Influent	GAC Effluent	Manifold Legs, locations TBD (Distinguish Phase 1/2)	Hot Soil Sampling, locations TBD	Hot Soil Sampling, locations TBD	GAC Influent (Condensate)	GAC Midfluent	GAC Midfluent	GAC Effluent	GAC Effluent	Hot Soil Sampling, locations TBD	Monitoring Wells
				Vapor			Vapor		Vapor	Vapor	Vapor	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				EPA TO-15	PID	Prevox Flammability Analyzer	EPA TO-15	PID	PID	PID	PID	EPA 8260B VOCs	EPA 8260B VOCs	EPA 8260B VOCs	Headspace PID	EPA 8260B VOCs	Full suite: EPA 624 VOCs including MTBE, O&G, Metals, 625 SVOCs, 8081 OC Pesticides, PCBs, Herbicides, Total & Amenable Cyanide, TSS, pH	EPA 624 VOCs, TSS, pH	EPA 8260B VOCs	EPA 8260B VOCs
				Summa Canister	Tedlar bag	Online	Summa Canister	Tedlar bag	Tedlar bag	Tedlar bag	Tedlar bags	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	ARCADIS	ARCADIS
				ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	Onsite Analysis	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Alpha Analytical	Alpha Analytical
				Grab weekly	Grab daily (weekdays)	Real Time/Continuous	Grab monthly (weekly during peak: Day 40-150)	Grab daily (weekdays)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab weekly during Phase 1 & 2 overlap	Grab @ 60 days (~15 locations) and 95 days (~35 locations)	Grab @ 64 days (~15 locations) and 99 days (~35 locations)	Grab weekly	Grab weekly	Grab weekly	Grab once within 30 days of startup	Grab monthly (after first month)	Grab at end of Phase 1 and end of Phase 2	Baseline (monthly thereafter)
Start Phase 2, Cont	121	Friday	9/12/14		X	X		X	(X)	(X)	X									
	122	Saturday	9/13/14			X														
	123	Sunday	9/14/14			X							X							
	124	Monday	9/15/14		X	X		X	(X)	(X)										
	125	Tuesday	9/16/14	X	X	X	X	X	(X)	(X)				X	X	X		X		X
	126	Wednesday	9/17/14		X	X		X	(X)	(X)										
	127	Thursday	9/18/14		X	X		X	(X)	(X)								X		
	128	Friday	9/19/14		X	X		X	(X)	(X)	X									
	129	Saturday	9/20/14			X														
	130	Sunday	9/21/14			X														
	131	Monday	9/22/14		X	X		X	(X)	(X)										
	132	Tuesday	9/23/14	X	X	X	X	X	(X)	(X)				X	X	X				
End Phase 1, Continue Phase 2 (60 days)	133	Wednesday	9/24/14		X	X		X	(X)	(X)										
	134	Thursday	9/25/14		X	X		X	(X)	(X)										
	135	Friday	9/26/14		X	X		X	(X)	(X)										
	136	Saturday	9/27/14			X														
	137	Sunday	9/28/14			X														
	138	Monday	9/29/14		X	X		X	(X)	(X)										
	139	Tuesday	9/30/14	X	X	X	X	X	(X)	(X)				X	X	X				
	140	Wednesday	10/1/14		X	X		X	(X)	(X)										
	141	Thursday	10/2/14		X	X		X	(X)	(X)										
	142	Friday	10/3/14		X	X		X	(X)	(X)										
	143	Saturday	10/4/14			X														
	144	Sunday	10/5/14			X														
	145	Monday	10/6/14		X	X		X	(X)	(X)										
	146	Tuesday	10/7/14	X	X	X	X	X	(X)	(X)				X	X	X				
	147	Wednesday	10/8/14		X	X		X	(X)	(X)										
	148	Thursday	10/9/14		X	X		X	(X)	(X)										
	149	Friday	10/10/14		X	X		X	(X)	(X)										
	150	Saturday	10/11/14			X														
	151	Sunday	10/12/14			X														
	152	Monday	10/13/14		X	X		X	(X)	(X)										
	153	Tuesday	10/14/14	X	X	X	X	X	(X)	(X)				X	X	X		X		X
	154	Wednesday	10/15/14		X	X		X	(X)	(X)										
	155	Thursday	10/16/14		X	X		X	(X)	(X)										
	156	Friday	10/17/14		X	X		X	(X)	(X)										
Phase 1, Continue Phase 2 (60 days)	157	Saturday	10/18/14			X														
	158	Sunday	10/19/14			X							X							
	159	Monday	10/20/14		X	X		X	(X)	(X)										
	160	Tuesday	10/21/14	X	X	X		X	(X)	(X)				X	X	X				
	161	Wednesday	10/22/14		X	X		X	(X)	(X)										
	162	Thursday	10/23/14		X	X		X	(X)	(X)										
	163	Friday	10/24/14		X	X		X	(X)	(X)										
	164	Saturday	10/25/14			X														
	165	Sunday	10/26/14			X														
	166	Monday	10/27/14		X	X		X	(X)	(X)										
	167	Tuesday	10/28/14	X	X	X		X	(X)	(X)				X	X	X				
	168	Wednesday	10/29/14		X	X		X	(X)	(X)										
	169	Thursday	10/30/14		X	X		X	(X)	(X)										
	170	Friday	10/31/14		X	X		X	(X)	(X)										
	171	Saturday	11/1/14			X														
	172	Sunday	11/2/14			X														
	173	Monday	11/3/14		X	X		X	(X)	(X)										
	174	Tuesday	11/4/14	X	X	X		X	(X)	(X)				X	X	X				
	175	Wednesday	11/5/14		X	X		X	(X)	(X)										
	176	Thursday	11/6/14		X	X		X	(X)	(X)										
	177	Friday	11/7/14		X	X		X	(X)	(X)										
	178	Saturday	11/8/14			X														
	179	Sunday	11/9/14			X														
	180	Monday	11/10/14		X	X		X	(X)	(X)										

TerraTherm Sampling Schedule
SRSNE
Southington, CT

				Influent Vapor			Effluent Vapor		Influent Vapor	Effluent Vapor	Wellfield Vapor	Progress Soil Phase I	Progress Soil Phase 2	System Liquid	System Liquid	System Liquid	System Liquid	System Liquid	Confirmation Soil	Groundwater
Phase	Number of Days	Day	Date	Oxidizer Influent			Oxidizer Effluent		GAC Influent	GAC Effluent	Manifold Legs, locations TBD (Distinguish Phase 1/2)	Hot Soil Sampling, locations TBD	Hot Soil Sampling, locations TBD	GAC Influent (Condensate)	GAC Midfluent	GAC Midfluent	GAC Effluent	GAC Effluent	Hot Soil Sampling, locations TBD	Monitoring Wells
				Vapor			Vapor		Vapor	Vapor	Vapor	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				EPA TO-15	PID	Prevox Flammability Analyzer	EPA TO-15	PID	PID	PID	PID	EPA 8260B VOCs	EPA 8260B VOCs	EPA 8260B VOCs	Headspace PID	EPA 8260B VOCs	Full suite: EPA 624 VOCs including MTBE, O&G, Metals, 625 SVOCs, 8081 OC Pesticides, PCBs, Herbicides, Total & Amenable Cyanide, TSS, pH	EPA 624 VOCs, TSS, pH	EPA 8260B VOCs	EPA 8260B VOCs
				Summa Canister	Tedlar bag	Online	Summa Canister	Tedlar bag	Tedlar bag	Tedlar bag	Tedlar bags	Soil	Soil	Liquid	Liquid	Liquid	Liquid	Liquid	Soil	Liquid
				TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	TerraTherm	ARCADIS	ARCADIS
				ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	ALS Environmental (Simi Valley)	Onsite Analysis	Onsite Analysis	Onsite Analysis	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Onsite Analysis	Accutest New England	Accutest New England	Accutest New England	Alpha Analytical	Alpha Analytical
				Grab weekly	Grab daily (weekdays)	Real Time/ Continuous	Grab monthly (weekly during peak: Day 40-150)	Grab daily (weekdays)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab daily (weekdays-- ONLY IF BACKUP SYSTEM IS IN USE)	Grab weekly during Phase 1 & 2 overlap	Grab @ 60 days (~15 locations) and 95 days (~35 locations)	Grab @ 64 days (~15 locations) and 99 days (~35 locations)	Grab weekly	Grab weekly	Grab weekly	Grab once within 30 days of startup	Grab monthly (after first month)	Grab at end of Phase 1 and end of Phase 2	Baseline (monthly thereafter)
End P	181	Tuesday	11/11/14	X	X	X	X	X	(X)	(X)				X	X	X		X		X
	182	Wednesday	11/12/14		X	X		X	(X)	(X)										
	183	Thursday	11/13/14		X	X		X	(X)	(X)										
	184	Friday	11/14/14		X	X		X	(X)	(X)										
	185	Saturday	11/15/14			X														
	186	Sunday	11/16/14			X														
	187	Monday	11/17/14		X	X		X	(X)	(X)										
	188	Tuesday	11/18/14	X	X	X		X	(X)	(X)				X	X	X				
	189	Wednesday	11/19/14		X	X		X	(X)	(X)										
	190	Thursday	11/20/14		X	X		X	(X)	(X)										
	191	Friday	11/21/14		X	X		X	(X)	(X)										
	192	Saturday	11/22/14			X														
	193	Sunday	11/23/14			X														
	194	Monday	11/24/14		X	X		X	(X)	(X)										
	195	Tuesday	11/25/14	X	X	X		X	(X)	(X)				X	X	X				
Shutdown/Cooldown (15 days)	196	Wednesday	11/26/14		X	X		X	(X)	(X)										
	197	Thursday	11/27/14		X	X		X	(X)	(X)										
	198	Friday	11/28/14		X	X		X	(X)	(X)										
	199	Saturday	11/29/14			X														
	200	Sunday	11/30/14			X														
	201	Monday	12/1/14		X	X		X	(X)	(X)										
	202	Tuesday	12/2/14		X	X		X	(X)	(X)										
	203	Wednesday	12/3/14		X	X		X	(X)	(X)										
	204	Thursday	12/4/14		X	X		X	(X)	(X)										
	205	Friday	12/5/14		X	X	X	X	(X)	(X)										
	206	Saturday	12/6/14			X														
	207	Sunday	12/7/14			X														
	208	Monday	12/8/14		X	X		X	(X)	(X)										
	209	Tuesday	12/9/14		X	X		X	(X)	(X)										
	210	Wednesday	12/10/14		X	X		X	(X)	(X)										

Italics = collect field duplicate Once per program
 = start/end of "peak" as defined by de maximis (Day 40-150)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Eva Davis, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: May 21, 2014

On May 21, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) –Derek LaRosee, Tim Mahoney, Robin Swift
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- USEPA –Karen Lumino
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the May 14, 2014 meeting were distributed on May 21, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Utilities
 - Pole connection to transformer (3-18-14)
 - Energize of CL&P electrical upgrade and receive account # (4/8/14)
 - Installation of gas manifold (4-16-14)
 - Installation of gas meter (4-21-14)
 - Adjustment of gas regulators (4-24-14)
 - Clean out of blocked gas line (starting 4/30/14)
 - Re-start of gas and adjustment of meters (5/2/14)
 - b) Construction & Start-up
 - Shakedown/troubleshooting using the generator ~3weeks (starting 3-31-14)
 - Water supply (softener) skid delivery (4-11-14)
 - Caustic tank installation (4-11-14)
 - Oxidizer shakedown (4/21/14)
 - Phase I SCR programming complete (4/29/14)
 - Interlock review of process equipment (starting 4/29/14)
 - Replacement of scrubber pump seal (5/14/14)
 - Installation of replacement O2 sensor (5/14/14)

- Start-up (5-15-14)
- Final commissioning of oxidizer (tentative 5-29-14)
- SCRs at design kW output (5-22-14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there have been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during shakedown and startup of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is working on final QC for the “think-thermal” website.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans, specifications and has been following the interlock table and P&ID diagrams. IQAT also noted that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website (<http://www.think-thermal.com/>; username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. EPA has the RAWP and O&M plan, the documents are currently being finalized. EPA and CT DEEP have requested hardcopies and electronic copies of the documents once they are finalized.
- B. The 5 year comprehensive groundwater sampling event has been scheduled to start June 9, 2014. As a result of additional well installation and sampling since the last 5 year review, a memo that includes a spreadsheet with a comprehensive list of wells to be sampled, sampling methods and parameters to be sampled for has been submitted to the EPA for approval. EPA has requested minor changes to this memo.
- C. Weston Solutions has completed installation of the new valve vault that will enable one of the two spare force mains to be used during O&M. They are currently working on scheduling the installation of RW-15. A completion report will be submitted once the well is installed.

IX. New Action Items

- A. Submit changes to groundwater sampling memo
- B. Review website when current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, May 28, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

May 28, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal website (5-27-14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) TerraTherm has started uploading some of the recent data to the website
- b) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Refresher on “think-thermal” website.

VIII) Other Business

- a) The 5 year comprehensive groundwater sampling event has been scheduled to start on June 9, 2014.
- b) Finalize RAWP and O&M plan and send out hard copies
- c) Weston Solutions has completed work on the new valve vault that will enable one of two spare forcemains to be placed into service during O&M. They are currently scheduling the installation of RW-15.
- d) The next progress meeting is Wednesday, June 4, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Karen Lumino, Shannon Pociu, Derek LaRosee

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: June 4, 2014

On May 28, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Tim Mahoney, Robin Swift
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone

I. Meeting Minutes

- A. Minutes from the May 21, 2014 meeting were distributed on May 28, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up (5-15-14)
 - b) SCRs at design kW output (5-22-14)
 - c) Final commissioning of oxidizer (5-29-14)
 - d) Data uploaded to “Think-Thermal” website (5-27-14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there have been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is working on requested changes for the “think-thermal” website.
 - b) TerraTherm summarized current operational conditions of the ISTR system
 - c) TerraTherm that the system is running smoothly and that energy input has been accelerated compared to other sites, this is due to 195 day schedule.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that the checklists have been reviewed. IQAT also noted that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website
(<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Current requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.
 - d) Add PID data, graph comparing to lab data

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. The Finalized RAWP and O&M plan will be uploaded to the SRS website and requested hardcopies and electronic copies of the documents of the documents are in production.
- B. The 5 year comprehensive groundwater sampling event has been scheduled to start June 9, 2014. A
- C. Weston Solutions has completed installation of the new valve vault that will enable one of the two spare force mains to be used during O&M. They are currently working on scheduling the installation of RW-15. A completion report will be submitted once the well is installed.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, June 4, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
June 18, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528**

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Add circuit layout drawing to “think-thermal” website

VIII) Other Business

- a) The 5 year comprehensive groundwater sampling event started on June 9, 2014 and was completed on June 17, 2014.
- b) Finalized version of the RAWP and O&M plan have been uploaded to <http://www.srsnesite.com/> and hardcopies have been sent out.
- c) Weston Solutions will schedule the installation of RW-15 upon approval of the Technical Work Plan that has been submitted to the EPA.
- d) The next progress meeting is Wednesday, June 25, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Karen Lumino

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: June 25, 2014

On June 18, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Tim Mahoney, Robin Swift, Derek LaRosee
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone, Chris Fuerst
- USEPA-Eva Davis
- CTDEEP- Shannon Pociu

I. Meeting Minutes

- A. Minutes from the May 28, 2014 meeting were distributed on June 18, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.

- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
- a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 6/16/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - Influent readings on the PID’s have been increasing and this trend is expected to continue
 - Temperature is approximately 60° C, adjustments based on data are expected to be made when the temperature reaches approximately 70 ° C
 - It is unknown how high PID readings are expected to get.
 - An additional circuit was added, it is currently ramping up and is expected to bring in additional vapor
 - There is a difference in the PID data vs Laboratory data on the Mass Removal Graph, this is due to a delay in receiving the laboratory data, and this graph will be updated as the data is received.
 - d) It was noted that the SCRs went down this am (6/18/14) and had to be restarted as a result of low voltage. Note: CL&P confirmed that there had been a pole vs car accident that had caused the voltage issue
- B. ARCADIS / QA
- a) No QA issues were noted during this period
- C. IQAT
- a) IQAT noted that all is going to plans and that the checklists have been reviewed. IQAT also noted that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website
(<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Requests included:
- a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.
 - d) Add PID data, graph comparing to lab data
 - e) Add scatter plot including contract milestones has been updated
 - f) Add circuit layout drawing to website

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. The Finalized RAWP and O&M plan has been uploaded to the SRS website and hardcopies and electronic copies of the documents have been sent as requested.

- B. The 5 year comprehensive groundwater sampling event started on June 9, 2014 and was completed on June 17, 2014.
- C. Weston Solutions will schedule the installation of RW-15 upon approval of Technical Work Plan that has been submitted to the EPA.

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Temperatures from the ISTR wells will be obtained and monitored regularly.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, June 25, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

June 25, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Add date of last data received to graphs

VIII) Other Business

- a) Weston Solutions will schedule the installation of RW-15 upon approval of the Technical Work Plan that has been submitted to the EPA.
- b) Temperatures were collected from all ISTR wells with the exception of ISTR 1 and ISTR 5, because Bio-traps have been deployed in those 2 wells. The Bio-traps have been deployed in several wells to obtain data that will help the current natural attenuation that is occurring on the site.
- c) The next progress meeting is Wednesday, July 2, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: July 2, 2014

On June 25, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Tim Mahoney, Robin Swift, Derek LaRosee
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone, Chris Fuerst
- USEPA-Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the June 18, 2014 meeting were distributed on June 25, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Vapor and liquid sampling has been performed as scheduled.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.

- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
- a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 6/16/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - Influent readings on the PID’s have been increasing and this trend is expected to continue
 - Temperature is approximately 60° C, adjustments based on data are expected to be made when the temperature reaches approximately 70 ° C
 - It is unknown how high PID readings are expected to get.
 - An additional circuit was added, it is currently ramping up and is expected to bring in additional vapor
 - There is a difference in the PID data vs Laboratory data on the Mass Removal Graph, this is due to a delay in receiving the laboratory data, and this graph will be updated as the data is received.
 - d) It was noted that TMP 67,74 & 75 are not heating as expected, TerraTherm is currently troubleshooting and adjustments are expected.
 - e) TerraTherm noted that temperature increases are ahead of schedule and that PID readings continue to trend upward.
 - f) TerraTherm is preparing for the progress soil sampling that is scheduled for mid-July when TMPs in Phase I uniformly reach 70 ° C
- B. ARCADIS / QA
- a) No QA issues were noted during this period
- C. IQAT
- a) IQAT noted that all is going to plans and that the checklists have been reviewed. IQAT also noted that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>; username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Requests included:
- a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.
 - d) Add PID data, graph comparing to lab data
 - e) Add scatter plot including contract milestones has been updated
 - f) Add circuit layout drawing to website
 - g) Added overall summary to weekly report

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. Weston Solutions will schedule the installation of RW-15 upon approval of Technical Work Plan that has been submitted to the EPA.
- B. The Draft Confirmation Sampling Work Plan will be finalized and sent to EPA and DEEP for review.

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Add last data of vapor sampling results received to PID vs data graph

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, July 2, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

July 9, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Sampling schedule

VIII) Other Business

- a) Weston Solutions will schedule the installation of RW-15 upon approval of the Technical Work Plan that has been submitted to the EPA.
- b) Draft Confirmation Sampling Work Plan will be finalized and sent to EPA and DEEP for review.
- c) The next progress meeting is Wednesday, July 16, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: July 16, 2014

On July 9, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Tim Mahoney, Robin Swift, Derek LaRosee
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone, Chris Fuerst
- USEPA-Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu

I. Meeting Minutes

- A. Minutes from the June 25, 2014 meetings were distributed on July 8, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (6/9/14)
 - j) Vapor and liquid sampling has been performed as scheduled.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 6/16/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - Influent readings on the PID’s have been increasing and this trend is expected to continue
 - Temperature is approximately 81° C
 - Adjustments in TMP 74&75 have resulted in an increase in temperature in these TMPs
 - TerraTherm continues to troubleshoot the TMP 67
 - There is a difference in the PID data vs Laboratory data on the Mass Removal Graph, this is due to a delay in receiving the laboratory data, and this graph will be updated as the data is received.
 - TMP 20 continues to have low temperatures, but temperatures have been increasing since turning on the additional circuit
 - d) TerraTherm noted that temperature increases are ahead of schedule and that PID readings continue to trend upward and they expect to see an increase in influent mass within the next week or so.
 - e) TerraTherm noted that they have set the Phase II heaters at idle to begin preparing to bring Phase II online.
 - f) TerraTherm is preparing for the progress soil sampling that is tentatively scheduled for July 28th and they will provide a sampling locations map and plan. Sampling is expected to take approximately 3 days.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up. IQAT requests information regarding the upcoming progress sampling event.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this.
 - d) Add PID data, graph comparing to lab data
 - e) Add scatter plot including contract milestones has been updated
 - f) Add circuit layout drawing to website
 - g) Added overall summary to weekly report

- h) Add IDs on scatterplot chart to TMPs that are not performing as expected

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. Weston Solutions will schedule the installation of RW-15 upon approval of Technical Work Plan that has been submitted to the EPA.
- B. The Draft Confirmation Sampling Work Plan will be finalized and sent to EPA and DEEP for review.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, July 16, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

July 16, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Sampling schedule (tentatively for the week of July 28th)
- b) Phase II heater schedule

VIII) Other Business

- a) Weston Solutions will schedule the installation of RW-15 upon approval of the Technical Work Plan that has been submitted to the EPA.
- b) Draft Confirmation Sampling Work Plan will be finalized and sent to EPA and DEEP for review.

- c) The next progress meeting is Wednesday, July 23, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Robin Swift, Derek LaRosee

Re: Solvents Recovery Service of New England, Inc. Superfund Site Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: July 22, 2014

On July 16, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Tim Mahoney, Alyson Fortune
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone, Chris Fuerst
- USEPA-Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu

I. Meeting Minutes

- A. Minutes from the July 9, 2014 meetings were distributed on July 16, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Vapor and liquid sampling has been performed as scheduled.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 7/15/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - Influent readings on the PID’s have been increasing and this trend is expected to continue
 - Temperature is approximately 85° C
 - There is a difference in the PID data vs Laboratory data on the Mass Removal Graph, this is due to a delay in receiving the laboratory data, and this graph will be updated as the data is received, lag time is approximately 2 weeks.
 - d) TerraTherm noted that temperature increases are ahead of schedule and that PID readings continue to trend upward and there has been an increase in influent mass as expected.
 - e) TerraTherm noted that they have set the Phase II heaters at idle plan to increase temperature in the next few weeks.
 - f) TerraTherm is preparing for the progress soil sampling that is tentatively scheduled for July 28th and they have provided a sampling locations map and plan. Sampling is expected to take approximately 3 days.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up. IQAT requests information regarding the upcoming progress sampling event.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this;
 - d) Add PID data, graph comparing to lab data;
 - e) Add scatter plot including contract milestones has been updated;
 - f) Add circuit layout drawing to website;
 - g) Added overall summary to weekly report;
 - h) Add IDs on scatterplot chart to TMPs that are not performing as expected;

- i) Change “projected” Lab results to a dashed line on the on the Mass removal chart

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. Weston Solutions will schedule the installation of RW-15 upon approval of Technical Work Plan that has been submitted to the EPA.
- B. The Draft Confirmation Sampling Work Plan will be finalized and sent to EPA and DEEP for review. We will discuss the work plan during next week’s call.
- C. EPA requests a figure that shows the proposed locations of where the progress soil samples will be taken.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, July 23, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

July 23, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 (7/22/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Progress sampling locations (scheduled for the week of July 28th)
- b) Discuss Confirmation Sampling workplan
- c) Phase II heater schedule

VIII) Other Business

- a) Weston Solutions will schedule the installation of RW-15 upon approval of the Technical Work Plan that has been submitted to the EPA. Tentatively scheduled for the week of August 4th.
- b) The next progress meeting is Wednesday, July 30, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: July 30, 2014

On July 23, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Derek LaRosee, Tim Mahoney, Alyson Fortune
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- IQAT – David Lehnus, Clayton Smith
- O&M - Ryan Malone, Chris Fuerst
- USEPA-Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the July 16, 2014 meetings were distributed on July 22, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)
 - l) Backup heat exchanger removed for repair (7/23/14)

- m) Vapor and liquid sampling has been performed as scheduled.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 7/28/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - Influent readings on the PID’s have been increasing and this trend is expected to continue
 - Temperature is approximately 89° C.
 - Centroid temperatures are expected to hit 90 ° C by the end of the week.
 - d) TerraTherm noted that temperature increases are ahead of schedule and that PID readings continue to trend upward and there has been an increase in influent mass as expected.
 - e) TerraTherm noted that they have set the Phase II heaters are heating as expected, they are currently at approximately 30 ° C, and will continue to ramp up in the next few weeks.
 - f) TerraTherm is preparing for the progress soil sampling that is tentatively scheduled for July 28th and they have provided a sampling locations map and plan. Sampling is expected to take approximately 3 days.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up. IQAT requests information regarding the upcoming progress sampling event.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this;
 - d) Add PID data, graph comparing to lab data;
 - e) Add scatter plot including contract milestones has been updated;
 - f) Add circuit layout drawing to website;
 - g) Added overall summary to weekly report;
 - h) Add IDs on scatterplot chart to TMPs that are not performing as expected;
 - i) Change “projected” Lab results to a dashed line on the on the Mass removal chart

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. Weston Solutions will schedule the installation of RW-15 upon approval of Technical Work Plan that has been submitted to the EPA.
- B. The Draft Confirmation Sampling Work Plan has been sent to EPA and DEEP for review. EPA has sent comments and will wait till progress sampling has been completed to make a final decision.
- C. A copy of the figure that shows the proposed locations of where the progress soil samples will be taken has been sent to EPA.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, July 30, 2014.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
July 30, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Phase II heater schedule

VIII) Other Business

- a) Weston Solutions has scheduled the installation of the pilot hole for RW-15 for the week of August 4th; the installation should take approximately 2 days.
- b) The next progress meeting is Wednesday, August 6, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Shannon Pociu, Derek LaRosee, David Lehnus, Rowan Thompson

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: August 6, 2014

On July 30, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Alyson Fortune
- ARCADIS - Kevin Crowder, Michael Skowronek, Jeff Holden
- IQAT – Clayton Smith
- USEPA-Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the July 23, 2014 meetings were distributed on July 30, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)
 - l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)

- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Vapor and liquid sampling has been performed as scheduled.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 7/28/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - This is the first week to differentiate between phase I and phase II
 - Temperature is approximately 93° C in phase I and 39° C in phase II.
 - TerraTherm reported that 75% of centroids have reached 85° C, which is a payment milestone.
 - d) TerraTherm noted that temperature increases are ahead of schedule.
 - e) TerraTherm noted that they have set the Phase II heaters are heating as expected, they are currently at approximately 39° C at 60%, and will continue to ramp up to 70% next Monday and continue to increase..
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this;
 - d) Add PID data, graph comparing to lab data;
 - e) Add scatter plot including contract milestones has been updated;
 - f) Add circuit layout drawing to website;
 - g) Added overall summary to weekly report;
 - h) Add IDs on scatterplot chart to TMPs that are not performing as expected;
 - i) Change “projected” Lab results to a dashed line on the on the Mass removal chart
 - j) Add ISTR wells to wellfield layout map

- C. It was noted that the discharge pump to the sanitary sewer stopped functioning this morning; discharge water has been temporarily rerouted to a frac tank. A new pump has been ordered and will be installed on 8/31/14. The inoperative pump has had no impact on ISTR progress.

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. Weston Solutions has scheduled the installation of the pilot hole for RW-15 for the week of August 4th.
- B. The Draft Confirmation Sampling Work Plan has been sent to EPA and DEEP for review. EPA has sent comments and will wait till progress sampling has been completed to make a final decision.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, August 6, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

July 30, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Phase II heater schedule

VIII) Other Business

- a) The pilot hole for RW-15 was completed on 8/6/14; boring logs from the installation will be reviewed for well screen design and the installation of RW-15 will be scheduled.
- b) The next progress meeting is Wednesday, August 13, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Derek LaRosee, Kevin Crowder,
Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes

Date: August 13, 2014

On August 6, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Alyson Fortune, Steffan Griepke
- ARCADIS - Michael Skowronek, Jeff Holden
- IQAT – Clayton Smith, David Lehnus
- USEPA-Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu

I. Meeting Minutes

- A. Minutes from the July 30, 2014 meetings were distributed on August 6, 2014 comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)
 - l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)

- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Vapor and liquid sampling has been performed as scheduled.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 8/5/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - Temperature is approximately 95° C in phase I and 45° C in phase II.
 - TerraTherm reported that 75% of centroids have reached 85° C, which is a payment milestone.
 - Mass removal totals, based on Lab data, PID readings and LNAPL, are estimated to be approximately 16,000lbs.
 - d) TerraTherm noted that they have set the Phase II heaters are heating as expected, they are currently at approximately 45° C at 60%, and will continue to ramp up to 70% on 8/7/14 and continue to increase.
 - e) Preliminary results from progress soil sampling at TMP 5 and 10 show impacts in the deep zone/bedrock interface.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Requests included:
 - a) Breaking up mass removal data;
 - b) Adding an environmental monitoring tab that includes Air Monitoring Data and ISTR data with graphs;
 - c) Linking Project Portal environmental data to this;
 - d) Add PID data, graph comparing to lab data;
 - e) Add scatter plot including contract milestones has been updated;
 - f) Add circuit layout drawing to website;
 - g) Added overall summary to weekly report;

- h) Add IDs on scatterplot chart to TMPs that are not performing as expected;
- i) Change “projected” Lab results to a dashed line on the on the Mass removal chart;
- j) Add ISTR wells to wellfield layout map;
- k) Estimate mass removal based on flammability analyzer.

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. The Draft Confirmation Sampling Work Plan has been sent to EPA and DEEP for review. EPA has sent comments and will wait till progress sampling has been completed to make a final decision.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, August 13, 2014.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
August 13, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Phase II heater schedule

VIII) Other Business

- a) The pilot hole for RW-15 was completed on 8/6/14; boring logs from the installation will be reviewed for well screen design and the installation of RW-15 will be scheduled.
- b) The next progress meeting is Wednesday, August 13, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Clayton Smith, David Lehnus

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 8/13/14 Project Call

Date: August 20, 2014

On August 13, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Alyson Fortune, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- O&M - Ryan Malone
- USEPA-Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu

I. Meeting Minutes

- A. Minutes from the August 6, 2014 meetings were distributed on August 13, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)

- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Bypass heat exchanger directly to oxidizer (8/12/14)
- p) Vapor and liquid sampling has been performed as scheduled.

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period. There has been additional emphasis on safety and housekeeping measures that will need to be observed during operations of the system.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm is making changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 8/12/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - Temperature is approximately 98° C in phase I and 57° C in phase II.
 - Mass removal totals, based on Lab data, PID readings and LNAPL are estimated to be approximately 20,000lbs.
 - d) Results from progress soil sampling show impacts in the deep zone/bedrock interface, Laboratory data from samples taken has been uploaded to the “think-thermal” website.
 - e) TerraTherm completed the bypass of the heat exchanger to the oxidizer.
 - f) TerraTherm is now logging data every 2 minutes from the Flammability Analyzer, as opposed to every 2 hours. This will help gain a better picture of current system operations and adjust overall approach as needed.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm is currently working on uploading current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requested. Additional requests are below:
 - a) Add removal rate to flammability analyzer;
 - b) Show one line on mass removal.

VII. Identification of Problems that May Impede Planned Progress

A. None

VIII. Other Business

A. Data from pilot hole for RW-15 is currently being reviewed to finalize design of well.

IX. New Action Items

A. Review website as current data is uploaded.

X. Upcoming Meetings

A. The next progress meeting will be held at 2:00 pm EST on Wednesday, August 20, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

August 20, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down (8/13/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) none

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Repair schedule
- b) Schedule moving forward

VIII) Other Business

- a) Design and schedule for RW-15 are being finalized.
- b) The next progress meeting is Wednesday, August 27, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 8/20/14 Project Call

Date: August 27, 2014

On August 20, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson, Rowan Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- IQAT - Clayton Smith, David Lehnus
- O&M - Ryan Malone
- USEPA-Eva Davis, Karen Lumino
- CTDEEP- Shannon Pociu

I. Meeting Minutes

- A. Minutes from the August 13, 2014 meetings were distributed on August 20, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Bypass heat exchanger directly to oxidizer (8/12/14)
- p) Oxidizer shut down (8/13/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 8/19/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - The thermal oxidizer shut down on Wednesday, August 13th and upon investigation discovered that a piece of equipment (daisy wheel) had been damaged inside the oxidizer. TerraTherm is still unsure of the root cause of the damage, but is currently reviewing data to look for a cause and measures that could be installed to prevent this type of incident from happening in the future.
 - The backup vapor carbon system has been online since shutdown and carbon change out is occurring every other day.
 - The wellfield heaters are currently idling at 10% with vapor treatment through carbon
 - Temperature is approximately 98° C in phase I and 68° C in phase II.
 - d) A clay filter has been place in the treatment system to remove NAPL that has not been removed by the oil water separator and scrubber.
 - e) TerraTherm anticipates that the oxidizer will be back on line on Wednesday, August 27.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports (<http://www.think-thermal.com/> username: srsnegroup, password: cleanup2014) where the data during ISTR will be posted was given by TerraTherm, the website can be adjusted to show additional data as requeste

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer offline

VIII. Other Business

- A. None

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, August 27, 2014.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
August 27, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down (8/13/14)
- r) CCC onsite (8/21/14)
- s) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- t) Replacement of daisy wheel and damaged refractory (8/26/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Oxidizer repair
- b) Oxidizer operation and restart

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>

username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Repair schedule
- b) Schedule moving forward

VIII) Other Business

- a) The next progress meeting is Wednesday, September 3, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Karen Lumino, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 8/27/14 Project Call

Date: September 3, 2014

On August 27, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- IQAT - Clayton Smith, David Lehnus
- O&M - Ryan Malone
- USEPA-Eva Davis

I. Meeting Minutes

- A. Minutes from the August 20, 2014 meetings were distributed on August 27, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)

- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 –ongoing)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 8/25/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - The thermal oxidizer shut down on Wednesday, August 13th and upon investigation discovered that a piece of equipment (daisy wheel) had been damaged inside the oxidizer. TerraTherm is still unsure of the root cause of the damage and continues reviewing data to look for a cause. Measures including an additional thermocouple and flame analyzer are being installed to prevent this type of incident from happening in the future.
 - The backup vapor carbon system has been online since shutdown and carbon change out continue to occur every other day.
 - The wellfield heaters are currently idling at 10% with vapor treatment through carbon
 - Temperature is approximately 97° C in phase I and 69° C in phase II.
 - d) A clay filter has been place in the treatment system to remove NAPL that has not been removed by the oil water separator prior to scrubber.
 - e) TerraTherm anticipates that the oxidizer will be back on line on Friday, August 29 and will begin to ramp up heaters next week.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.

- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer offline

VIII. Other Business

- A. None

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, September 3, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

September 3, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Heaters set to 20% (9/1/14)
- y) Heaters set to 30% (9/2/14)
- z) Heaters set to 40% (9/3/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) ISTR operation and schedule after oxidizer restart

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Schedule moving forward
- b) Root cause analysis memo

VIII) Other Business

- a) The next progress meeting is Wednesday, September 10, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Clayton Smith

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 9/3/14 Project Call

Date: September 10, 2014

On September 3, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- IQAT - David Lehnus
- O&M - Ryan Malone
- USEPA- Eva Davis, Karen Lumino
- CTDEEP - Shannon Pociu

I. Meeting Minutes

- A. Minutes from the August 27, 2014 meetings were distributed on September 3, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 –8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 9/2/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - The thermal oxidizer shut down on Wednesday, August 13th and upon investigation discovered that a piece of equipment (daisy wheel) had been damaged inside the oxidizer. The oxidizer was repaired and an additional thermocouple and flame analyzer were added to prevent this type of incident from happening in the future. A root cause analysis memo is being completed and will be issued after it is reviewed.
 - The wellfield heaters are currently at 40% and the oxidizer is online.
 - Temperature is approximately 95° C in phase I and 65° C in phase II.
 - d) A clay filter has been place in the treatment system to remove NAPL that has not been removed by the oil water separator prior to scrubber.
 - e) TerraTherm will keep the phase I heaters at 40% to observe the system and will increase phase I heaters on Monday and possibly increase phase II heaters at the end of next week.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up but has lapsed since the shutdown of the oxidizer..

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer offline

VIII. Other Business

- A. None

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, September 10, 2014.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Clayton Smith

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 9/3/14 Project Call

Date: September 10, 2014

On September 3, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- IQAT - David Lehnus
- O&M - Ryan Malone
- USEPA- Eva Davis, Karen Lumino
- CTDEEP - Shannon Pociu

I. Meeting Minutes

- A. Minutes from the August 27, 2014 meetings were distributed on September 3, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 –8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 9/2/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - The thermal oxidizer shut down on Wednesday, August 13th and upon investigation discovered that a piece of equipment (daisy wheel) had been damaged inside the oxidizer. The oxidizer was repaired and an additional thermocouple and flame analyzer were added to prevent this type of incident from happening in the future. A root cause analysis memo is being completed and will be issued after it is reviewed.
 - The wellfield heaters are currently at 40% and the oxidizer is online.
 - Temperature is approximately 95° C in phase I and 65° C in phase II.
 - d) A clay filter has been place in the treatment system to remove NAPL that has not been removed by the oil water separator prior to scrubber.
 - e) TerraTherm will keep the phase I heaters at 40% to observe the system and will increase phase I heaters on Monday and possibly increase phase II heaters at the end of next week.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up but has lapsed since the shutdown of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. None

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, September 10, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

September 10, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Heaters set to 20% (9/1/14)
- y) Heaters set to 30% (9/2/14)
- z) Heaters set to 40% (9/3/14)
- aa) Heaters set to 50% (9/8/14)
- bb) Heaters set to 60% (9/10/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Schedule moving forward
- b) Root cause analysis memo

VIII) Other Business

- a) The next progress meeting is Wednesday, September 17, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Clayton Smith

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 9/10/14 Project Call

Date: September 23, 2014

On September 10, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- IQAT - David Lehnus
- O&M - Ryan Malone
- USEPA- Eva Davis, Karen Lumino
- CTDEEP - Shannon Pociu

I. Meeting Minutes

- A. Minutes from the September 3, 2014 meetings were distributed on September 10, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 9/8/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - The root cause analysis memo, following the August 13th shutdown, is currently being finalized.
 - The phase I well field heaters are currently between 60 and 70% and the oxidizer is online.
 - Temperature is approximately 95° C in phase I and 70° C in phase II.
 - d) An antifoaming agent has been added to air stripper because of excessive foaming most likely caused by the clay filter that has been placed online.
 - e) TerraTherm will continue to observe the system and analyze data received from flame analyzers moving forward, possibly increasing phase II heaters at the end of next week.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up but has lapsed since the shutdown of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. None

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Submit “root cause analysis memo”
- C. TerraTherm to submit an updated schedule

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, September 17, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

September 24, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Heaters set to 20% (9/1/14)
- y) Heaters set to 30% (9/2/14)
- z) Heaters set to 40% (9/3/14)
- aa) Heaters set to 50% (9/8/14)
- bb) Heaters set between 60-70% (9/10/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014

VII) New Action Items

- a) Schedule moving forward

VIII) Other Business

- a) “Root Cause Analysis” memo submitted September 18th.
- b) The next progress meeting is Wednesday, October 1, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Ryan Malone

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 9/24/14 Project Call

Date: October 1, 2014

On September 24, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosee
- ARCADIS - Michael Skowronek, Jeff Holden, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- USEPA- Eva Davis, Karen Lumino
- CTDEEP - Shannon Pociu

I. Meeting Minutes

- A. Minutes from the September 10, 2014 meetings were distributed on September 23, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)

- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 9/23/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - The root cause analysis memo, following the August 13th shutdown, was submitted on September 18th, the memo will be revised or an addendum will be completed following final analysis from Prevox.
 - The phase I well field heaters have recovered to the temperatures they were before the oxidizer shutdown.
 - Phase II temperatures continue to rise most likely from phase I heaters and thermal costing.
 - d) An antifoaming agent has been added to air stripper because of excessive foaming most likely caused by the clay filter that has been placed online.
 - e) TerraTherm will continue to observe the system and analyze data received from flame analyzers moving forward, possibly increasing phase II heaters at the end of the month is it appears that the system is properly operating and phase I is coming off peak.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. None

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Submit revised or addendum to “root cause analysis memo”
- C. TerraTherm to submit an updated schedule the end of next week.
- D. Installation of RW-15 to commence the week of October 6th
- E. TerraTherm plans to perform the second progress soil sampling starting the wee

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, October 1, 2014.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Bruce Thompson, Ryan Malone, Jeff Holden

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 10/1/14 Project Call

Date: October 8, 2014

On October 1, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosee
- ARCADIS - Michael Skowronek,, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- USEPA- Eva Davis, Karen Lumino
- CTDEEP - Shannon Pociu

I. Meeting Minutes

- A. Minutes from the September 24, 2014 meetings were distributed October 1, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)

- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 9/29/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, a copy of their weekly report is included, some items to note:
 - An Addendum to the root cause analysis memo, following final analysis from Prevex, is currently being reviewed by TerraTherm. The root cause analysis memo was submitted on September 18th following the August 13th shutdown.
 - The phase I well field heaters have recovered to the temperatures they were before the oxidizer shutdown and have reached the third temperature milestone.
 - Phase II heaters will be ramped up over the weekend and TerraTherm hopes to reach full power in Phase II by the end of next week.
 - d) TerraTherm will continue to observe the system and analyze data received from flame analyzers moving forward, possibly increasing phase II heaters at the end of the month is it appears that the system is properly operating and phase I is coming off peak.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. TerraTherm plans to submit a revise schedule by the end of the week
- B. The 2nd Phase I progress sampling event is scheduled to start the week of October 13th

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Submit revised or addendum to “root cause analysis memo”
- C. TerraTherm to submit an updated schedule the end the week.
- D. Installation of RW-15 to commence the week of October 6th
- E. TerraTherm to submit phase I progress sampling locations by the end of next week.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, October 8, 2014.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Bruce Thompson, Ryan Malone

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 10/8/14 Project Call

Date: October 22, 2014

On October 8, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Derek LaRosee, Gorm Heron, Nikole Stone
- ARCADIS - Michael Skowronek, , Jeff Holden, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- USEPA- Eva Davis, Karen Lumino
- CTDEEP - Shannon Pociu

I. Meeting Minutes

- A. Minutes from the October 1, 2014 meetings were distributed October 8, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)

- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) //Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 10/6/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - The phase I well field has reached optimum temperature, phase I heater temperature will be scaled down to maintain current phase I well field temperatures. The phase I well field temperature is currently approximately 102°C.
 - Phase II heaters have been ramped up to full power and phase II well field temperatures continue to increase. The phase II well field temperature is currently approximately 70°C.
 - The 2nd progress sampling event is scheduled to begin next week, sampling is expected to take approximately 10 days.
 - TerraTherm noted that approximately 200,000 lbs of mass has been removed and they continue to adjust their removal calculations as they received additional lab data.
 - Terratherm also noted that the bulk of the mass being removed is from phase II
 - The oxidizer continues to be run using additional manual dilution air as a safety factor.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period

C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014
- C. TerraTherm to submit 2nd progress sampling locations by the end of the week.
- D. The Phase I confirmation sampling will be scheduled after reviewing the 2nd progress sampling results. The confirmation sampling locations will be reviewed and adjusted after receiving the results.

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. Installation of RW-15 is currently underway and expected to be completed by the end of the week and developed next week.

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Submit revised or addendum to “root cause analysis memo”
- C. TerraTherm to submit an updated schedule the end the week.
- D. TerraTherm to submit phase I progress sampling locations by the end of next week.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, October 22, 2014.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
October 22, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd progress sampling event (10-13/14-10/21/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014
- d) Progress sampling results
- e) Confirmation sampling schedule

VII) New Action Items

- a) Updated schedule
- b) Review confirmation sampling results after receiving final progress sampling results.

VIII) Other Business

- a) “Root Cause Analysis” memo submitted September 18th, revisions or an addendum will be submitted following analysis from PreveX and Bill Troxler.
- b) Installation and development of RW-15 has been completed.
- c) The next progress meeting is Wednesday, October 8, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Bruce Thompson, Ryan Malone, Derek LaRosee, Jeff Holden, Shannon Pociu

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 10/22/14 Project Call

Date: October 29, 2014

On October 22, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Jessie McCusker
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone
- ARCADIS - Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- USEPA- Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the October 8, 2014 meetings were distributed October 22, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)
 - k) Adjusted length of heater 590 due to short circuiting (7/22/14)
 - l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)

- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 10/6/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - The phase I well field has reached optimum temperature, phase I heater temperature will be scaled down to maintain current phase I well field temperatures. The phase I well field temperature is currently approximately 100°C.
 - Phase II heaters have been bumped up to 75% power and phase II well field temperatures continue to increase. The phase II well field temperature is currently approximately 87°C.
 - The 2nd progress sampling event is scheduled has been completed and results received thus far show that only one sample, T-70 at 9’, has xylene concentrations slightly above Interim NAPL cleanup levels. TerraTherm expects to receive the remaining results by the end of the week
 - TerraTherm noted that approximately 300,000 lbs of mass has been removed and they continue to adjust their removal calculations as they received additional lab data.
 - Terratherm also noted that they continue to see mass coming from phase I.
 - TerraTherm plans to schedule the 1st progress sampling event for phase II in the next 2 weeks.
- B. ARCADIS / QA

- a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014
- C. The Phase I confirmation sampling will be scheduled after reviewing the 2nd progress sampling results. The confirmation sampling locations work plan will be reviewed and adjusted after receiving the results. The revised work plan along with additional data and changes to the hot soil sampling SAP will be presented to the Agencies for their review.

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. Installation of RW-15 been completed and Weston is currently working on installing the plumbing and electrical to bring the well online.

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Submit revised or addendum to “root cause analysis memo”
- C. Submit progress soil sampling results and additional data to agencies for review.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, October 29, 2014.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
October 29, 2014, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd progress sampling event (10-13/14-10/21/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014
- d) Progress sampling and additional data results
- e) Confirmation sampling schedule

VII) New Action Items

Present progress sampling results, updated confirmation sampling workplan, revised hot soil sampling, and any additional data to agencies for their review.

VIII) Other Business

- a) Installation and development of RW-15 has been completed, Weston is currently working on electrical and plumbing installation to bring the well online.
- b) The next progress meeting is Wednesday, November 5, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Derek LaRosee

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 10/29/14 Project Call

Date: November 5, 2014

On October 22, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Jessie McCusker, Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone, Gorm Heron
- ARCADIS - Jeff Holden
- O&M- Ryan Malone
- IQAT - David Lehnus, Clayton Smith
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the October 22, 2014 meetings were distributed October 29, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 10/6/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - The phase I well field has reached optimum temperature, phase I heater temperature have been scaled down to maintain current phase I well field temperatures. The phase I well field temperature is currently approximately 100°C.
 - Phase II heaters have been bumped up to 80% power and phase II well field temperatures continue to increase. The phase II well field temperature is currently approximately 95°C.
 - The 2nd progress sampling event has been completed and results show that only one sample, T-70 at 9’, has xylene concentrations slightly above Interim NAPL cleanup levels.
 - Terratherm noted that they continue to see mass coming from phase I.
 - TerraTherm plans to schedule the 1st progress sampling event for phase II in the next 2 weeks.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period

C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014
- C. The confirmation sampling locations work plan has been reviewed and adjusted after receiving the results from the 2nd phase I progress sampling event. The revised work plan along with additional data and changes to the hot soil sampling SOP has been presented to the Agencies for their review. These revisions were discussed with the agencies and it was agreed that Phase I confirmation sampling will be scheduled. Any comments/revisions provided by the agencies will be addressed/incorporated prior to the sampling event.

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. Installation of RW-15 been completed and Weston is currently working on installing the plumbing and electrical to bring the well online.

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Submit revised or addendum to “root cause analysis memo”
- C. Schedule Confirmation sampling event.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, November 5, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

November 5, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd progress sampling event (10-13/14-10/21/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014
- d) Confirmation sampling has been scheduled to commence on November 11th, proposed relocations of sample locations have been field verified for accessibility. A revised figure showing proposed

VII) New Action Items

Present progress sampling results, updated confirmation sampling workplan, revised hot soil sampling, and any additional data to agencies for there review.

VIII) Other Business

- a) Installation and development of RW-15 has been completed, Weston is currently working on electrical and plumbing installation to bring the well online.
- b) The next progress meeting is Wednesday, November 12, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt, Derek LaRosee

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 11/05/14 Project Call

Date: November 12, 2014

On November 5, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

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- ARCADIS - Jeff Holden, Kevin Crowder
- O&M- Ryan Malone
- IQAT - David Lehnus, Clayton Smith
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino

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 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
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- n) Replace discharge pump (7/31/14)
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- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
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- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 11/4/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - The phase I well field has reached optimum temperature, phase I heater temperature have been scaled down to maintain current phase I well field temperatures. The phase I well field temperature is currently approximately 100°C.
 - Phase II heaters have been bumped up to 85% power and phase II well field temperatures continue to increase. The phase II well field temperature is just shy of 100°C.
 - Summa canister data from samples collected from manifold legs has just been received, TerraTherm plans to review and distribute the data
 - Terratherm noted that they continue to see mass coming from phase I.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014
- C. The confirmation sampling locations work plan has been reviewed and adjusted after receiving the results from the 2nd phase I progress sampling event. Revisions were incorporated and the work plan has been approved along by the Agencies. The confirmation sampling event is scheduled to commence on Tuesday, November 11th.

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. Installation of RW-15 been completed and Weston is currently working on installing the plumbing and electrical to bring the well online.

IX. New Action Items

- A. Review website as current data is uploaded.
- B. Submit revised or addendum to “root cause analysis memo”
- C. Distribute summa data from legs.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, November 12, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

November 12, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
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- c) Final commissioning of oxidizer (5/29/14)
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- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
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- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-current)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014
- d) Summa canister results from samples collected from legs of the well-field have been distributed and are currently being analyzed.

VII) New Action Items

- a) Confirmation sampling commenced on November 11th and sampling is progressing as scheduled.
- b) ISTR wells 1-7 are currently being sampled.

VIII) Other Business

- a) Installation and development of RW-15 has been completed and the well is currently online.
- b) The next progress meeting is Wednesday, November 19, 2014, 2:00pm (EST)

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

December 3, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
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- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14 – ongoing)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
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III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) Phase 1 ISTR Report distributed December 1, proposing shut down of heating in portion of Phase 1 area.
- b) Phase 2 progress sampling underway this week.

VIII) Other Business

- a) Survey of completed RW-15 is in progress.
- b) The next progress meeting is Wednesday, December 10, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 11/05/14 Project Call

Date: December 10, 2014

On December 3, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

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- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 12/1/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - The phase I well field has reached optimum temperature, phase I heater temperature have been scaled down to maintain current phase I well field temperatures. The phase I well field temperature is currently approximately 100°C.
 - Phase II heaters have been equilibrated as the optimum temperature average of 100°C has been achieved.
 - Based on calculations using previous using pre-treatment VOC mass, more than 99% of the mass has been removed to date, totaling 408,000 lbs (197,000 lbs from Phase I and 211,000 from Phase II)

- Terratherm noted that they continue to see a total of ~250 lbs of mass coming from phase I per day, approximately 0.13% of total mass removed to date. Based upon the results of the confirmatory soil sampling data, this mass does not appear to be emanating from within the overburden material of the wellfield but is suspected to be generated from the bedrock.
- In order to assess the odor issues observed by DEEP during a previous Site visit, TerraTherm will perform personal air monitoring for VOCs and metals during Phase II interim soil sampling efforts.

B. ARCADIS / QA

- a) No QA issues were noted during this period

C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. Installation of RW-15 been completed and the well is currently online.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, December 17, 2014.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

December 10, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- kk) Phase I heaters shutdown (12/8/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) Revised Phase 1 ISTR Report distributed December 9, 2014, with revisions as requested by the agencies.
- b) Phase 2 progress sampling completed/results.
- c) Phase I shut down and disassembly.
- d) Personal breathing zone monitoring results

VIII) Other Business

- a) Survey of completed RW-15 is in completed.
- b) The next progress meeting is Wednesday, December 17, 2014, 2:00pm (EST)

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, John Hunt

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 12/10/14 Project Call

Date: December 17, 2014

On December 10, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Gorm Heron, Derek LaRossee
- ARCADIS - Jeff Holden, Kevin Crowder, John LaChance
- O&M- Ryan Malone
- IQAT - David Lehnus, Clayton Smith
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the December 3, 2014 meeting was distributed December 10, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I heaters shutdown (12/8/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 12/15/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - The portions phase I well field, that were approved by the EPA, have been shut down.
 - Phase II heaters are being adjusted to concentrate heat in areas where temperatures are lower.
 - Phase II progress sampling has been performed, final results will be distributed within the next few days
 - Personal breathing zone monitoring has been performed as a result for concern of odors on site. Results will be distributed when they are received.
- B. ARCADIS / QA

- a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. TerraTherm continues to upload current data to website.
- B. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. Oxidizer shutdown delayed progress

VIII. Other Business

- A. A survey of RW-15 been completed and all three wells are currently online.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting is Wednesday, December 17, 2014, 2:00pm (EST)

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

December 17, 2014, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- kk) Phase I heaters shutdown (12/8/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.
- d) Phase II progress sampling results.
- e) Personal breathing zone monitoring results

VII) New Action Items

- a) Phase II confirmation sampling locations and schedule

VIII) Other Business

- a) Survey of completed RW-15 is in completed.
- b) The next progress meeting is TBD.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

December 29, 2014, 210:30 AM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.
- d) Phase II confirmation sampling locations
- e) ISTR well groundwater sampling results

VII) New Action Items

- a) Phase II confirmation sampling locations and schedule

VIII) Other Business

- a) Survey of completed RW-15 is in completed.
- b) The next progress meeting is Wednesday, January 7, 2014, 2:00pm (EST).

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Robin Swift, Derek LaRossee, Ryan Malone

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 12/29/14 Project Call

Date: January 7, 2015

On December 29, 2014 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) –, Tim Mahoney
- ARCADIS - Jeff Holden, Kevin Crowder, John LaChance
- IQAT - David Lehnus, Clayton Smith
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the December 10, 2014 meeting was distributed December 17, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)
 - j) Set Phase II heaters to 20% (7/16/14)

- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I select heaters ramp down (12/4/14-12/8/14)
- ii) Phase II progress sampling (12/1/14-12/8/14)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 12/28/14 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - Select Phase I heaters have been shut down.
 - 90 % of Phase II TMP’s have reached an average temperature of 100°C. TMP-92, 95, and 97 remain under 90°C.
 - Based on calculations using previous using pre-treatment VOC mass, more than 99% of the mass has been removed to date, totaling approximately 417,831 lbs

B. ARCADIS / QA

- a) No QA issues were noted during this period

C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. A revised phase II confirmation sampling locations figure was sent to the agencies for review, comments with suggested location changes have been provided. The locations will be reviewed and incorporated.
- B. Phase II confirmation sampling is set to begin on Monday, January 5, 2015. Sampling will take approximately 10 days.
- C. The next round of ISTR groundwater sampling is scheduled to begin on January 12, 2015.
- D. TerraTherm continues to upload current data to website.
- E. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. None.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, January 7, 2015.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
January 7, 2015, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

mm) Phase II progress sampling (12/1/14-12/8/14)

nn) Phase II confirmation sampling (start 1/5/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction
- b) Odor issue

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) Phase II confirmation sampling results
- b) Upcoming ISTR GW sampling

VIII) Other Business

- a) The next progress meeting is Wednesday, January 14, 2014, 2:00pm (EST).

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

January 21, 2015, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

mm) Phase II progress sampling (12/1/14-12/8/14)

nn) Phase II confirmation sampling (1/5/15-1/13/115)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) Phase II confirmation sampling results
- b) Phase II select heater shutdown
- c) Re-sampling failed confirmation sampling locations and date
- d) Mass Flux and Vapor sampling trend graphs
- e) Additional ISTR GW sampling

VIII) Other Business

- a) The next progress meeting is Wednesday, January 28, 2014, 2:00pm (EST).

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Jeff Holden, Kevin Crowder, ,

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 1/21/15 Project Call

Date: January 28, 2015

On January 21, 2015 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone, Derek LaRossee
- ARCADIS - John LaChance
- IQAT - David Lehnus, Clayton Smith
- O&M - Ryan Malone
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the December 29, 2014 meeting was distributed January 7, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)

- j) Set Phase II heaters to 20% (7/16/14)
- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I select heaters ramp down (12/4/14-12/8/14)
- ii) Phase II progress sampling (12/1/14-12/8/14)
- jj) Phase II confirmation sampling (1/5/14 – 1/13/15)
- kk) Oxidizer shutdown and vapor routed to carbon (1/10/15)
- ll) Phase II heaters raised and insulation added to select area (1/21/15)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 1/19/15 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:

- Phase II TMP's have reached an average temperature of 103°C. Influent concentrations remain at approximately 400ppm, this estimate is based on PID as the oxidizer has been taken offline.
- Based on calculations using previous using pre-treatment VOC mass, more than 99% of the mass has been removed to date, totaling approximately 425,565 lbs. Phase I and Phase II daily mass removal rates are 31 & 76 lbs/day, respectively.

B. ARCADIS / QA

- a) No QA issues were noted during this period

C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. Shutdown of select Phase II heaters
- B. Phase II confirmation re-sampling of select areas is set to begin on Monday, February 2, 2015. Sampling will take approximately 10 days.
- C. The next round of ISTR groundwater sampling is scheduled to begin on February 2, 2015.
- D. TerraTherm continues to upload current data to website.
- E. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. None.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, January 28, 2015.

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 1/28/15 Project Call

Date: February 11, 2015

On January 28, 2015 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone, Derek LaRossee
- ARCADIS - John LaChance, Jeff Holden, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- O&M - Ryan Malone
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino

I. Meeting Minutes

- A. Minutes from the January 21, 2014 meeting was distributed January 28, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)

- j) Set Phase II heaters to 20% (7/16/14)
- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I select heaters ramp down (12/4/14-12/8/14)
- ii) Phase II progress sampling (12/1/14-12/8/14)
- jj) Phase II confirmation sampling (1/5/14 – 1/13/15)
- kk) Oxidizer shutdown and vapor routed to carbon (1/10/15)
- ll) Phase II heaters raised and insulation added to select area (1/21/15)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 1/25/15 and is included on the “think-thermal” website.
 - c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:

- Phase II TMP's have reached an average temperature of 103°C. Influent concentrations remain at approximately 300 ppm, this estimate is based on PID as the oxidizer has been taken offline.
- Based on calculations using previous using pre-treatment VOC mass, more than 99% of the mass has been removed to date, totaling approximately 427,200 lbs. Phase I and Phase II daily mass removal rates are 10.9 & 46 lbs/day, respectively.
- Insulation has been added around soil samples CSL-32, 33, & 34 and heaters have been raised around CSL-34.

B. ARCADIS / QA

- a) No QA issues were noted during this period

C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. Shutdown of select Phase II heaters option "A" and "B"
 - a) Agencies request an option "C" that includes all wells in option "A" and all wells along SV-16.
- B. Phase II confirmation re-sampling of select areas is set to begin on Monday, February 2, 2015.
- C. The next round of ISTR groundwater sampling is scheduled to begin on February 2, 2015.
- D. TerraTherm continues to upload current data to website.
- E. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. None.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, February 11, 2015.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

February 11, 2015, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

- mm) Phase II progress sampling (12/1/14-12/8/14)
- nn) Phase II confirmation sampling (1/5/15-1/13/15)
- oo) Oxidizer taken offline and vapor routed to carbon (1/10/15)
- pp) Select Phase II heaters raised and insulation added to select area (1/21/15)
- qq) Select heater in Phase II ramped down (1/30/15)
- rr) Phase II ISTR soil re-sampling (2/3/15 – 2/4/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) ISTR soil sampling results summary and next steps
- b) ISTR GW trend graphs

VIII) Other Business

- a) The next progress meeting is Wednesday, February 18, 2014, 2:00pm (EST).

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 2/110/15 Project Call

Date: February 18, 2015

On February 11, 2015 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone
- ARCADIS - John LaChance, Jeff Holden, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- O&M - Ryan Malone
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino, Lee Thomas

I. Meeting Minutes

- A. Minutes from the January 28, 2014 meeting was distributed February 11, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)

- j) Set Phase II heaters to 20% (7/16/14)
- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I select heaters ramp down (12/4/14-12/8/14)
- ii) Phase II progress sampling (12/1/14-12/8/14)
- jj) Phase II confirmation sampling (1/5/14 – 1/13/15)
- kk) Oxidizer shutdown and vapor routed to carbon (1/10/15)
- ll) Phase II heaters raised and insulation added to select area (1/21/15)
- mm) Select Heaters in Phase II ramped down (1/30/15)
- nn) Phase II ISTR soil re-sampling-18 samples (2/3/15 -2/4/15)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 2/9/15 and is included on the “think-thermal” website.

- c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - Phase II TMP's have reached an average temperature of 100°C. Influent concentrations remain at approximately 450 ppm, this estimate is based on PID as the oxidizer has been taken offline.
 - Based on calculations using previous using pre-treatment VOC mass, more than 99% of the mass has been removed to date, totaling approximately 427,900 lbs. Phase I and Phase II daily mass removal rates are 18 & 19 lbs/day, respectively.
 - As a result of the failure of the soil re-sampled at CSL-32, the insulation around soil samples CSL-32 has been adjusted and heaters have been raised approximately ½-foot.
 - May add sleeves around CSL-32 for additional heaters during next sampling event.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. Re-sampling CSL-32 (2-3 samples) tentatively scheduled for Tuesday, February 17, 2015 .
- B. The next round of ISTR groundwater sampling is scheduled to begin on Tuesday, February 17, 2015.
- C. TerraTherm continues to upload current data to website.
- D. Continue to review and submit suggestions to the website and weekly reports
[\(http://www.think-thermal.com/\)](http://www.think-thermal.com/)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. None.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, February 18, 2015.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

February 18, 2015, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

- mm) Phase II progress sampling (12/1/14-12/8/14)
- nn) Phase II confirmation sampling (1/5/15-1/13/15)
- oo) Oxidizer taken offline and vapor routed to carbon (1/10/15)
- pp) Select Phase II heaters raised and insulation added to select area (1/21/15)
- qq) Select heater in Phase II ramped down (1/30/15)
- rr) Phase II ISTR soil re-sampling (2/3/15 – 2/4/15)
- ss) Re-sampling CSL-32 (2/17/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) ISTR CSL-32 resampling and next steps

VIII) Other Business

- a) The next progress meeting is Wednesday, February 25, 2014, 2:00pm (EST).

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Jeff Holden

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 2/18/15 Project Call

Date: February 27, 2015

On February 18, 2015 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone, Gorm Heron, Derek Larosee
- ARCADIS - John LaChance, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- O&M - Ryan Malone
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino, Lee Thomas

I. Meeting Minutes

- A. Minutes from the February 11, 2014 meeting was distributed February 18, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)

- j) Set Phase II heaters to 20% (7/16/14)
- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I select heaters ramp down (12/4/14-12/8/14)
- ii) Phase II progress sampling (12/1/14-12/8/14)
- jj) Phase II confirmation sampling (1/5/14 – 1/13/15)
- kk) Oxidizer shutdown and vapor routed to carbon (1/10/15)
- ll) Phase II heaters raised and insulation added to select area (1/21/15)
- mm) Select Heaters in Phase II ramped down (1/30/15)
- nn) Phase II ISTR soil re-sampling-18 samples (2/3/15 -2/4/15)
- oo) Re-sampling CSL-32 (2/17/15)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.

- b) A copy of the weekly SRS ISTR Summary Report was distributed on 2/17/15 and is included on the “think-thermal” website.
- c) TerraTherm summarized current operational conditions of the ISTR system, some items to note:
 - Phase II TMP’s have reached an average temperature of 104°C. Influent concentrations range from 260 to 450 ppm, this estimate is based on PID as the oxidizer has been taken offline.
 - Based on calculations using previous using pre-treatment VOC mass, more than 99% of the mass has been removed to date, totaling approximately 428,032 lbs. Phase I and Phase II daily mass removal rates are 12 & 15 lbs/day, respectively.
 - As a result of the shutdown of portions of the well field, temperature points have been readjusted so that there is no longer a clear phase I/II line.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. Results from re-sampling CSL-32 on Tuesday, February 17, 2015 should be received today or tomorrow am and will be distributed.
- B. TerraTherm continues to upload current data to website.
- C. Continue to review and submit suggestions to the website and weekly reports
(<http://www.think-thermal.com/>)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. None.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, February 25, 2015.

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

February 27, 2015, 1:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

- mm) Phase II progress sampling (12/1/14-12/8/14)
- nn) Phase II confirmation sampling (1/5/15-1/13/15)
- oo) Oxidizer taken offline and vapor routed to carbon (1/10/15)
- pp) Select Phase II heaters raised and insulation added to select area (1/21/15)
- qq) Select heater in Phase II ramped down (1/30/15)
- rr) Phase II ISTR soil re-sampling (2/3/15 – 2/4/15)
- ss) Re-sampling CSL-32 (2/17/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) ISTR final report and next steps

VIII) Other Business

- a) The next progress meeting is Wednesday, March 4, 2014, 2:00pm (EST).

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 2/27/15 Project Call

Date: March 2, 2015

On February 27, 2015 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call.

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone, Gorm Heron
- ARCADIS - John LaChance, Jeff Holden, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- O&M - Ryan Malone
- CTDEEP- Shannon Pociu
- USEPA- Eva Davis, Karen Lumino, Lee Thomas

I. Meeting Minutes

- A. Minutes from the February 11, 2014 meeting was distributed February 21, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)

- j) Set Phase II heaters to 20% (7/16/14)
- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I select heaters ramp down (12/4/14-12/8/14)
- ii) Phase II progress sampling (12/1/14-12/8/14)
- jj) Phase II confirmation sampling (1/5/14 – 1/13/15)
- kk) Oxidizer shutdown and vapor routed to carbon (1/10/15)
- ll) Phase II heaters raised and insulation added to select area (1/21/15)
- mm) Select Heaters in Phase II ramped down (1/30/15)
- nn) Phase II ISTR soil re-sampling-18 samples (2/3/15 -2/4/15)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.
 - b) A copy of the weekly SRS ISTR Summary Report was distributed on 2/23/15 and is included on the “think-thermal” website.

B. ARCADIS / QA

- a) No QA issues were noted during this period

C. IQAT

- a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. ISTR Completion Report and the request to shut down the remaining heaters was submitted to agencies prior to the call. The Agencies will review the report and provide a response ASAP.

B.

- C. TerraTherm continues to upload current data to website.

- D. Continue to review the website and weekly reports

(<http://www.think-thermal.com/>)

username: srsnegroup,

password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. None.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, March 4, 2015.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
March 4, 2015, 1:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

- mm) Phase II progress sampling (12/1/14-12/8/14)
- nn) Phase II confirmation sampling (1/5/15-1/13/15)
- oo) Oxidizer taken offline and vapor routed to carbon (1/10/15)
- pp) Select Phase II heaters raised and insulation added to select area (1/21/15)
- qq) Select heater in Phase II ramped down (1/30/15)
- rr) Phase II ISTR soil re-sampling (2/3/15 – 2/4/15)
- ss) Re-sampling CSL-32 (2/17/15)
- tt) Approval to shut down remaining heaters (3/1/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) ISTR final report revisions
- b) Demobilization schedule and procedures

VIII) Other Business

- a) The next progress meeting is Wednesday, March 11, 2014, 2:00pm (EST).

**Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting**

Agenda

March 4, 2015, 2:00 PM ET

Dial In: (866) 503-5711

Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

- mm) Phase II progress sampling (12/1/14-12/8/14)
- nn) Phase II confirmation sampling (1/5/15-1/13/15)
- oo) Oxidizer taken offline and vapor routed to carbon (1/10/15)
- pp) Select Phase II heaters raised and insulation added to select area (1/21/15)
- qq) Select heater in Phase II ramped down (1/30/15)
- rr) Phase II ISTR soil re-sampling (2/3/15 – 2/4/15)
- ss) Re-sampling CSL-32 (2/17/15)
- tt) Approval to shut down remaining heaters (3/1/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) ISTR final report revisions
- b) Demobilization schedule and procedures

VIII) Other Business

- a) The next progress meeting is Wednesday, March 11, 2014, 2:00pm (EST).

To: MEMO TO FILE

From: Jessie McCusker

cc: Attendees, Lee Thomas, Eva Davis

Re: Solvents Recovery Service of New England, Inc. Superfund Site
Meeting- ISTR Construction- DRAFT Meeting Minutes 3/4/15 Project Call

Date: March 11, 2015

On March 3, 2015 a Meeting for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) In-Situ Thermal Remediation (ISTR) construction was held at the **de maximis, inc.** (de maximis) field office located in Southington, CT and via conference call. Delivery

Participating in the meeting were the following:

- de maximis – Bruce Thompson
- TerraTherm, Inc (TerraTherm) – Robin Swift, Tim Mahoney, Nikole Stone
- ARCADIS - Jeff Holden, Kevin Crowder
- IQAT - David Lehnus, Clayton Smith
- O&M - Ryan Malone
- CTDEEP- Shannon Pociu, Tom RisCassi
- USEPA- Karen Lumino

I. Meeting Minutes

- A. Minutes from the February 27, 2014 meeting was distributed March 3, 2014; comments received have been incorporated.

II. Schedule/Progress Review

- A. Work completed this period and the proposed remaining ISTR construction schedule is summarized below:
- a) Start-up Phase I (5/15/14)
 - b) SCRs at design kW output (5/22/14)
 - c) Final commissioning of oxidizer (5/29/14)
 - d) Data uploaded to “Think-Thermal” website (5/27/14)
 - Data plotter is live
 - All graphs at data are updated weekly
 - Progress reports will be issued weekly on Mondays
 - e) Installed turbulators to increase efficiency of heat exchange for process air to oxidizer, as a result gas usages has dropped by approximately 25% (6/6/14)
 - f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs to help maintain consistent power to controller. This changes was made based on concerns in reliability and on recommendations from the manufacturer (6/10/14-6/11/14)
 - g) Shut dilution air valve, valve was open to minimize amount of water pulled into system (6/20/14)
 - h) Adjusted temperature sensor locations for TMP 74 & 75 (7/3/14)
 - i) Set Phase II heaters to idle (7/9/14)

- j) Set Phase II heaters to 20% (7/16/14)
- k) Adjusted length of heater 590 due to short circuiting (7/22/14)
- l) Backup heat exchanger removed for repair (7/23/14) repaired and reinstalled (7/30/14)
- m) Progress sampling- 5 borings were advanced near TMP-5, 10, 47, 24, & 74, three samples from each boring were submitted to the lab for analysis. Samples submitted were chosen based on PID and visual observations as well as a sample at the bedrock interface. (7/28/14 – 7/30/14)
- n) Replace discharge pump (7/31/14)
- o) Heat exchanger added to sanitary discharge line (8/11/14)
- p) Bypass heat exchanger directly to oxidizer (8/12/14)
- q) Oxidizer shut down, heaters set to idle, vapor routed to carbon (8/13/14)
- r) CCC onsite to assess oxidizer damage and perform repairs (8/21/14-8/28/14)
- s) Placement and calibration of additional thermocouple and flame analyzer (8/22/14 – 8/29/14)
- t) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- u) Replacement of daisy wheel and damaged refractory (8/26/14)
- v) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- w) Phase I heaters set to 20% (9/1/14)
- x) Phase I heaters set to 30% (9/2/14)
- y) Phase I heaters set to 40% (9/3/14)
- z) Phase I heaters set to 50% (9/8/14)
- aa) Phase I heaters set between 60-70% (9/10/14)
- bb) Clay filter and carbon swap out (10-1-14)
- cc) Phase II heaters ramped up from 20-40% (10/5-8/14)
- dd) Heat exchange coil added to oil water separator to reduce bio-foaming (10/7/14)
- ee) 2nd progress sampling event (10/13/14-10/21/14)
- ff) Phase I confirmatory sampling event (11/11/14-11/19/14)
- gg) EPA approved shutdown of phase I heaters with the exception of select locations on the perimeter of the Phase II area as proposed. (12/3/14)
- hh) Phase I select heaters ramp down (12/4/14-12/8/14)
- ii) Phase II progress sampling (12/1/14-12/8/14)
- jj) Phase II confirmation sampling (1/5/14 – 1/13/15)
- kk) Oxidizer shutdown and vapor routed to carbon (1/10/15)
- ll) Phase II heaters raised and insulation added to select area (1/21/15)
- mm) Select Heaters in Phase II ramped down (1/30/15)
- nn) Phase II ISTR soil re-sampling-18 samples (2/3/15 -2/4/15)
- oo) Remaining heaters ramped down (3/3/15)

III. Safety/Housekeeping

- A. TerraTherm continues to conduct daily tailgate safety meetings at the start of each workday.
- B. TerraTherm noted that there has been no safety incidents reported during this period.

IV. Record Keeping

- A. O&M staff maintains the perimeter monitoring stations and submits maintenance documents to de maximis and ARCADIS. The current alarm limit is 1ppm as measured with a PID.

V. Quality Control / Quality Assurance

- A. TerraTherm / QC
 - a) TerraTherm continues to make changes as requested to the “think-thermal” website.

- b) A copy of the weekly SRS ISTR Summary Report was distributed on 3/2/15 and is included on the “think-thermal” website.
- B. ARCADIS / QA
 - a) No QA issues were noted during this period
- C. IQAT
 - a) IQAT noted that all is going to plans and that TerraTherm has been following the updated sampling plan since start-up and following shutdown and restart of the oxidizer.

VI. Engineering and Design Items

- A. The remaining heaters will be completely offline by 3/6/15; vapors will continue to be treated until wellfield is below 100°C, this will take approximately 3weeks.
- B. TerraTherm is currently working on a demobilization plan and has been removing wiring and heater.
- C. Per the SOW ISTR completion triggers a post construction inspection which intern triggers the construction completion report.
- D. Sampling of downgradient wells 3x a year until equilibrium is reached has been triggered and will be scheduled.
- E. IC plan will be revised to use current ELUR form.
- F. One more round of groundwater sampling will be performed of the ISTR wells and will include sampling for dioxin.
- G. TerraTherm continues to upload current data to website.
- H. Continue to review the website and weekly reports
[\(http://www.think-thermal.com/\)](http://www.think-thermal.com/)
username: srsnegroup,
password: cleanup2014

VII. Identification of Problems that May Impede Planned Progress

- A. None

VIII. Other Business

- A. None.

IX. New Action Items

- A. Review website as current data is uploaded.

X. Upcoming Meetings

- A. The next progress meeting will be held at 2:00 pm EST on Wednesday, March 11, 2015.

Solvents Recovery Service of New England, Inc Superfund Site
ISTR Construction Meeting
Agenda
March 11, 2015, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

- mm) Phase II progress sampling (12/1/14-12/8/14)
- nn) Phase II confirmation sampling (1/5/15-1/13/15)
- oo) Oxidizer taken offline and vapor routed to carbon (1/10/15)
- pp) Select Phase II heaters raised and insulation added to select area (1/21/15)
- qq) Select heater in Phase II ramped down (1/30/15)
- rr) Phase II ISTR soil re-sampling (2/3/15 – 2/4/15)
- ss) Re-sampling CSL-32 (2/17/15)
- tt) Approval to shut down remaining heaters (3/1/15)
- uu) Remaining heaters ramped down (3/2/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR Construction

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) Current ISTR operation and schedule.

VI) Engineering and Design Items

- a) ISTR weekly progress report summary
- b) Data to the “think-thermal” website is updated weekly and the data plotter is live
- c) Continue to review website: <http://www.think-thermal.com/>
username: srsnegroup
password: cleanup2014.

VII) New Action Items

- a) ISTR final report revisions
- b) Update on demobilization schedule
- c) Post construction inspection
- d) Remedial Action Report

VIII) Other Business

- a) The next progress meeting is Wednesday, March 18, 2014, 2:00pm (EST).

Solvents Recovery Service of New England, Inc Superfund Site
Monthly Meeting
Agenda
April 8, 2015, 2:00 PM ET
Dial In: (866) 503-5711
Participant Code: 5082669528

I) Introductions / Meeting Minutes

- a) Preparation and Distribution of Meeting Minutes

II) Schedule / Progress Review

- a) Start-up (5/15/14)
- b) SCRs at design kW output (5/22/14)
- c) Final commissioning of oxidizer (5/29/14)
- d) Data uploaded to “think-thermal” website (5/27/14)
- e) Install turbulators to increase efficiency of heat exchange for process air to oxidizer (6/6/14)
- f) Replaced power supplies and wiring harnesses to 2 Phase I SCRs and all of Phase II SCRs, to help maintain consistent power to controller (6/10/14-6/12/14)
- g) Shut dilution air valve (6/20/14)
- h) Adjusted TMP 74 & 75 (7/3/14)
- i) Set Phase II heaters to idle (7/9/14)
- j) Open vapor valves for Phase II (7/16/14)
- k) Set Phase II heaters to 20% (7/15/14)
- l) Adjusted length of heater 590 due to short circuiting (7/22/14)
- m) Backup heat exchanger removed for repair (7/23/14) reinstalled (7/30/14)
- n) Progress sampling (7/28/14 -7/30/14)
- o) Replace discharge pump (7/31/14)
- p) Heat exchanger added to sanitary discharge line (8/11/14)
- q) Bypass heat exchanger directly to oxidizer (8/12/14)
- r) Oxidizer shut down (8/13/14)
- s) CCC onsite (8/21/14)
- t) Placement of additional thermocouple and flame analyzer (8/22/14)
- u) Clay filtration unit put online between the oil water separator and the scrubber (8/25/14)
- v) Replacement of daisy wheel and damaged refractory (8/26/14)
- w) Oxidizer online, block valve open, & heaters set to 10% (8/29/14)
- x) Phase I heaters set to 20% (9/1/14)
- y) Phase I heaters set to 30% (9/2/14)
- z) Phase I heaters set to 40% (9/3/14)
- aa) Phase I heaters set to 50% (9/8/14)
- bb) Phase I heaters set between 60-70% (9/10/14)
- cc) Clay filter and carbon replacement (10/1/14)
- dd) Phase II heaters set at 20% (10/5/14)
- ee) Phase II heaters set at 30% (10/6/14)
- ff) Phase II heaters set at 40% (10/7/14)
- gg) Heat exchange coil added to scrubber to reduce bio-foaming (10/7/14)
- hh) 2nd phase I progress sampling event (10/13/14-10/21/14)
- ii) Confirmation sampling (11/11/14-11/19/14)
- jj) Phase I progress sampling (12/1/14 -12/8/14)
- kk) Phase I heaters ramped down ~ 10% per day (12/4/14-12/8/14)
- ll) Phase I heaters shutdown (12/8/14)

- mm) Phase II progress sampling (12/1/14-12/8/14)
- nn) Phase II confirmation sampling (1/5/15-1/13/15)
- oo) Oxidizer taken offline and vapor routed to carbon (1/10/15)
- pp) Select Phase II heaters raised and insulation added to select area (1/21/15)
- qq) Select heater in Phase II ramped down (1/30/15)
- rr) Phase II ISTR soil re-sampling (2/3/15 – 2/4/15)
- ss) Re-sampling CSL-32 (2/17/15)
- tt) Approval to shut down remaining heaters (3/1/15)
- uu) Remaining heaters ramped down (3/2/15)
- vv) Vapor recovery shut down wellfield below 100 °C (4/2/15)

III) Safety / Housekeeping

- a) Safety Summary during ISTR demobilization

IV) Quality Control / Quality Assurance

- a) ARCADIS / O&M, Inc.
- b) TerraTherm
- c) IQAT

V) Identification of Problems that May Impede Planned Progress

- a) None

VI) Engineering and Design Items

- a) Current demobilization progress update

VII) New Action Items

- a) ISTR final report revisions and response to comments
- b) Post construction inspection
- c) Additional dioxin background sampling

VIII) Other Business

- a) The next progress meeting is Wednesday, May 13, 2014, 2:00pm (EST).