

**Agenda for the Thursday January 3, 2019 Workshop and Meeting of the  
Roane County Environmental Review Board  
Roane County Courthouse**

**Attendees:**

Present	Absent	
X		*Martha Deaderick, General Member
X		*Charlotte Bowers, County Commission Representative
	X	*Dr. Timothy Joseph, General Member
X		*Mary Anne Koltowich, General Member
X		*Janice Moody, Recorder
	X	*David Reichle, Lifetime Member (Vote if present)
X		*John Shaw, Chairperson
X		*Shirley Stone, General Member
X		Tim Suter, County Executive's Office Representative
X		*George Winebarger, General Member
	X	David Wasilko, Student Member

\*Voting Member

**Workshop**

**TDEC and Health Attendees:**

Chris Thompson, TDEC, [chris.p.thompson@tn.gov](mailto:chris.p.thompson@tn.gov)

Brad Stephenson, TDEC, [brad.stephenson@tn.gov](mailto:brad.stephenson@tn.gov)

Chrissy McNaughton, TDEC, [christina.mcnaughton@tn.gov](mailto:christina.mcnaughton@tn.gov)

Joseph George, TN Dept. Health, [joseph.george@tn.gov](mailto:joseph.george@tn.gov)

David Borowski, TN Dept. Health, [david.m.borowski@tn.gov](mailto:david.m.borowski@tn.gov)

Randy Ellis, Chair County Commission, [randyellis@gmail.com](mailto:randyellis@gmail.com)

Laura Conner, TN Dept. Health Roane Co., [laura.conner@tn.gov](mailto:laura.conner@tn.gov)

Tim Suter, EMS/EMA, [Tim.suter@roanecountytn.gov](mailto:Tim.suter@roanecountytn.gov)

Jonathon Burr, TDEC – Div. Water Resources, [Jonathon.burr@tn.gov](mailto:Jonathon.burr@tn.gov)

Chuck Head, TDEC, Assistant Commissioner, Bureau of Environment, [chuck.head@tn.gov](mailto:chuck.head@tn.gov)

Ron Woody, Roane County Executive, [ronwoody@roanecountytn.gov](mailto:ronwoody@roanecountytn.gov)

Jerry R. Cunningham, Retired ORNL Health Physicist, [jerrycunningham@gmail.com](mailto:jerrycunningham@gmail.com)

**Workshop Proceedings:**

Chairman, JShaw, called the Workshop to order at 6 p.m.

Work Session Discussion List

- Invasive Aquatic Plants
- Asian Silver Carp
- KIF Peninsula Landfill Monitoring Results
- DOE EMDF Landfill, New Site 7C

- EPA Superfund Site: Clinch River Corporation, Harriman
- EPA Changes to Coal Ash Rule
- TVA Small Modular Reactor Project
- Microplastics in TB rivers, including Clinch, Tennessee, and Emory

Everyone introduced themselves and their affiliation. See TDEC and Health Attendees:

- Chuck Head said he worked with the investigation and cleanup of the Kingston coal ash spill
- Jonathan Burr said he was an environmental fellow for the TDEC Division of the Water Resources. He said he was a biologist, and he was one of the original responders for TDEC to setup monitors.
- David Borowski said he and Joe George were involved after the coal ash spill. David Borowski said he and Joe George help put together the health assessment report.

JShaw opened the floor for presentations, questions, and/or comments.

Chuck Head said he met with Ron Woody a couple of weeks ago:

- Chuck Head he understands that are some concerns regarding the TVA Kingston Plant, perhaps concerns regarding the active landfill site; and questions regarding the normal operations of the TVA Kingston Plant.
- Chuck Head said they were prepared to answer any questions, and if there could not answer our questions; he would get the answers to us later.
- Chuck Head said he understood that there were concerned for the environmental safety of the park and the sports complex; and perhaps there was an inhalation hazard for coal ash.
- Chuck Head said he understood there were concerns about the ground water monitoring, and the gypsum land field on the peninsula.

Ron Woody asked Randy Ellis to help on these points:

- Ron Woody said there were 2 or 3 resolutions that were filled at the Roane County Commission.
  - Ron Woody said these resolutions were deferred or “tabled” because Commission was discussing entering litigation against Jacobs Engineering.
  - Ron Woody said they were waiting on the attorneys’ recommendations.
  - Ron Woody said that even though the Commission did not adopt the resolutions, the Commission had some concerns.
    - The first concern is what should we do as a County regarding the leased property where the soccer fields are. Roane County has a pavilion there and restroom facilities. Ron Woody said these facilities are somewhat dormant now because of the winter season, but by the end of March 2019, the County will need to know if it is safe for the County to use those facilities.
    - Another concern is potential test results from wells around the gypsum ponds.
    - These were the 2 major concerns that Roane County was asking Tennessee State and Environmental Review Board to give the County guidance on:

- Should we do extensive testing to find out if it is safe to use the fields?
- Do we have a problem on the gypsum land field?
- Randy Ellis said he was involved on day 1 of the ash spill and testified in the federal lawsuit.
- Randy Ellis said at the memorial service, many workers told him they put material under the soccer fields that should not be in a soccer field.
- Randy Ellis said it was brought to his attention regarding the test wells by the gypsum pond. The information was discovered in January, but the County was not notified of this data until November/December.
- GWinebarger asked Chuck Head what regulatory oversight does TDEC have over TVA and/or DOE activities/limitations?
  - Chuck Head said over the TVA Kingston Plant, TDEC regulates that facility under the Tennessee Air Pollution Control Act, Tennessee Water Quality Control Act, and Tennessee Solid Waste Management Act.
  - Chuck Head said at the plant itself, the plant has an air pollution control permit. In that permit, the plant has emission standards that the plant must meet as to what goes out the top of the stacks, and TDEC monitors those emissions.
  - Chuck Head said regarding the plant itself, the plant generates solid waste and goes to the gypsum land field; TDEC regulates any type of hazardous waste that the plant may generate.
  - Chuck Head said under the Water Quality Control Act, the plant has an EPS permit regarding discharge into the Emory River. When TVA discharges into the Emory River, there are certain standards that must be met.
  - Chuck Head said he thought TVA had applied for and received an aquatic resources alteration permit to help firm up the bank where the water intake channel is located.
  - Chuck Head said the gypsum land field is permitted by TDEC under the Solid Waste Management Act. TVA applied for and received a Class II Industrial Waste Permit. Chuck Head said TDEC inspects the facility quarterly.
    - Chuck Head said a little history regarding the land field, when they started the construction of the land field around 2010/2011, they had a dropout. TDEC worked with TVA, and TVA had to meet TDEC's standards for having a geological buffer.
  - Chuck Head said TVA has now closed the settling pond and stilling pond.
  - Chuck Head said TDEC has a second order issued to all the TVA plants across the state requiring TVA to investigate where the coal ash has been disposed of at each site, and where ground and surface water has been impacted. Once this has been done, TVA must supply TDEC an

investigation report. TDEC has required TVA to take samples of soil and ground water as part of the investigation. TDEC has required TVA to make a structural and seismic stability analysis in case there was an earthquake and if anything would be released into the river.

- MAKoltowich asked along with the annual groundwater monitoring for the gypsum pond, has there been a report filed?
- MAKoltowich asked if they were monitoring wells as well?
  - Chuck Head said he would check on these questions and report back to us.
- MAKoltowich said regarding the gypsum pond, what happens to the leachate that gets collected?
  - Chuck Head said that is under a second EPS Permit for the peninsula. The way the land field is constructed, the geological barrier and liner, the leachate is collected at the bottom and pumped out and goes into a pond that is adjacent and is treated in that pond, and there is an EPS Permit for the discharge of that liquid.
  - Chuck Head said there are standards in the permit that TVA must met regarding the treatment of the liquid.
  - Chuck Head said he would send us a list of constitutes and limits that are discharged from the facility.
- Randy Ellis asked how often are the monitoring wells tested?
  - Chuck Head said TVA monitors the wells quarterly for TDEC under the Land Fill Permit.
- Chuck Head said he wanted to discuss the ground water report that was posted by TVA on their website. Chuck Head stated that is not posted as part of the State solid waste law or regulations; it was posted because TVA also to meet some Federal standards and regulations for coal combustion residuals at fossil burning plants. One of the things that was required since the landfill is actively used for disposal of gypsum; TVA had to install a series of monitoring wells which is different from what TDEC requires for State regulations. The Federal regulations require TVA to collect samples once a month for 8 months and report the findings; and the report was required to be placed on the TVA website.
  - Randy Ellis asked if TDEC could monitor those wells and collect the samples rather than TVA?
    - Chuck Head said historically the entity takes the samples and sent to a lab that is certified to analyze those types of samples.
    - Chuck Head said TDEC could monitor the wells, and TDEC is willing to consider monitoring the wells; and collect the samples the same time that TVA collects the samples; and TDEC will send their samples to a different lab.

- JShaw said Roane County would greatly appreciate it if TDEC would monitor the wells at the same time TVA monitored them. JShaw said he would like for TDEC to report to Roane County what TVA's procedures are, and which subcontractor TVA uses to collect and test the samples.
  - JShaw said in the TVA report that was issued by Stantec in one of the tables, it was the detection monitoring ground water sampling results; there was a comparison from their downstream wells compared to the upstream wells for the ground water. In those results, it showed a definite increase in one of the downstream wells compared to the upstream of several constituents. However, when you look at the layout of the wells, the way they are laid out, the Southern facing wall of the land field towards the river, it basically a "smiley face" for a lack of a better description. The 3 sets of wells – they have 2 sets – shallow wells and a deep well. They have wells at the "corner of the smile" then they have a well in the center of the smile. The well in the center of the smile has the elevated reading. The wells at the corner of the smile do not. However, that is a very large face, and we are concerned that something is going on in the smiley face corners that is not being represented in the data.
  - Chuck Head said he thought it would be helpful if there was a map of all the wells.
- GWinebarger asked if TDEC has a position on whether the coal ash should be considered as a hazardous waste?
    - Chuck Head said he would share his thoughts and he thought he was speaking for TDEC as well on coal ash; but when the initial land field failure occurred, one of TDEC concerns was ash and water. Whether metals would leach out and pose a threat to public health. TDEC, EPA, Duke University, and TVA took collected samples of the ash at the site. They all ran the samples through a process where they put ash in contact with water and got a Ph of about 2 to 2.5, rotated for 24 hours, and analyzed the water to see how much came out. None of those samples indicated any of the metals like arsenic, lead, or mercury come close to a limit that would be classified as hazardous waste under the State or Federal regulations.
  - GWinebarger asked about the source?
    - Chuck Head said there is a Bevill exclusion for mining waste and for whatever reason, Congress passed a provision that type of waste could not be designated as a hazardous waste. Chuck Head said TDEC because they were concerned about levels whether they would be above levels that would borderline levels be classified as hazardous waste, we took those samples of ash and had them sampled and compared it to levels that would declare it as a characteristic hazardous waste. Chuck Head said EPA has rules and the materials are not from a mine, they ran it through the TCL process and if you have 5 parts per million arsenic, then

it could be classified as hazardous waste, but we did not have any levels close to that from the ash.

- JShaw asked if TDEC looked at the airborne constituents?
  - Chuck Head said TDEC has some sampling results from where TDEC and EPA had sampling devices at the perimeter of the facility, and TDEC asked the Department of Health to help them look at the results of those samples. TDEC's goal was to make sure the site would not adversely affect the community.
- JShaw asked if TDEC looked at the radiological constituents that are in the ash?
  - Chuck Head said yes when they did the TCLP, there are requirements and TDEC analyzed for Radium 226 and 228.
- JMoody asked if there was a list of all the metals TDEC was checking?
  - TDEC provided the list.
    - See attachments: ARCADIS Metals tracked page 1 of 3.jpg
    - ARCADIS Metals tracked page 2 of 3.jpg
    - ARCADIS Metals tracked page 3 of 3.jpg
- JShaw asked if TDEC is looking at the current proposed changes to coal ash classification that are being proposed by the current administration?
  - Chuck Head said TDEC reviews new proposals and can comment. The current rules were put in place on April 17, 2015 which caused a flurry of lawsuits.
- Chuck Head asked if we wanted to talk about the ball/soccer fields in the park?
  - Randy Ellis said he was told by many of the workers that material is under the ball/soccer field that should not be there.
  - MAKoltowich said if Roane County needed to install new infrastructure, examples, new lighting, plumbing, and/or excavating, we may be digging some unwanted material(s) up.
  - MAKoltowich said some core drilling might answer those questions/concerns.
  - Ron Woody said he thought a pump system was installed. Ron Woody stated the County had to dig there twice for a pump system and an irrigation system.
  - Ron Woody said the concern is, is it safe to play sports there? And we need to get those concerns handled by the end of March.
  - Ron Woody said we have an agreement with TVA, and TVA would have to grant us permission to core drill, etc.
  - Ron Woody said if we must put light poles in that would be may tell/prove the danger.
  - JShaw and Randy Ellis said workers are dying from respiratory based illnesses. The workers did not digest the ground water, but they have inhaled in some fashion. They are concerned for the children and people that attend the games.

- Chuck Head said the quickest way may be to take samples of soil on the surface of the ball/soccer fields and see if coal ash is present and establish a baseline.
- Ron Woody asked if the Health Department and/or TDEC could help with sampling plan of the ball/soccer fields?
- Ron Woody said he has some concerns expressed by the Environmental Review Board the Commission adopted 2 months ago resolution/recommending the new land field for nuclear waste that would have mercury constituents in the waste in Roane County close to the land field for the Y-12 waste. Ron Woody asked TDEC if they have concerns regarding this land field.
  - Chrissy McNaughton said TDEC has some concerns and those concerns are outlined in their state acceptance plan. Chrissy McNaughton said Brad Stephenson has copies of that plan, and he could give us copies of that plan and highlight some of TDEC's concerns.
  - Brad Stephenson gave highlights of TDEC's concerns.
    - See attachments:
      - TDEC Environmental Management Disposal Facility Fact Sheet.pdf
      - TDEC Comment Letter.pdf
      - Mercury Disposal in the Proposed EMDF.pdf
  - Brad Stephenson said Anderson County and Ron Woody requested an extension for comments.
  - Ron Woody said he wanted to summarize from his perspective and based on TDEC representation at this meeting, we have a short period of time to make comments, and do we want the County to reconsider by a resolution to County Commission.
    - JShaw said RCERB had already submitted their comments in November 2018 to Mr. Japp, DOE FFA Project Manager.
      - See Attachment ORR\_Waste\_storage\_Site\_Plan\_Comment-20181021.pdf
    - JShaw said the concerns RCERB had mirrored TDEC's concerns.
    - Ron Woody asked JShaw to send RCERB's comments to Amber Cofer, and JShaw said he resend to RCERB as well.
- JShaw said a concern RCERB has been made aware is microplastics in the Tennessee Rivers, about the quantities and how it is being addressed. JShaw asked TDEC if they have been investigating this issue?
  - TDEC said the real vector is all the plastic you see floating, overtime the microplastics turn into smaller and smaller pieces; and it reaches a point where the microplastic is ingestible and becomes part of the food chain.
  - JShaw that is the concern.
- JShaw said the only remaining item that RCERB has been discussing and providing comments is the TVA Small Monitor Reactor project proposed at the old Clinton Breeder

Reactor Site. JShaw stated RCERB had commented on the draft environmental impact study.

- JShaw asked TDEC if they had provided comments on this project?
- TDEC said unless there is waste or discharged TDEC does not have any regulatory authority.
- JShaw thanked everyone for attending.

### **End Work Session – 8:08 pm**

### **RCERB Meeting Called to Order 8:10 pm**

**Changes To and Approval of Agenda:** A motion was made to approve the January 3, 2019 agenda by MAKoltowich and 2<sup>nd</sup> by JMoody. Vote to approve was unanimous.

**Changes To and Approval of the December 6, 2018 Meeting Minutes:** A motion was made to approve the December 6, 2018 minutes by MAKoltowich and 2<sup>nd</sup> by MDeadrick. Vote to approve was unanimous.

### **Public Comment**

None

### **Board Business - Active**

- 1) Resolution Review and Approve/Disapprove – Invasive Aquatic Plant
  - JMoody made a motion to approve this resolution and 2<sup>nd</sup> by MAKoltowich. Vote to approve was unanimous.
- 2) Resolution Review and Approve/Disapprove – KIF Peninsula Monitoring Results
  - GWinebarger made a motion to approve this resolution and 2<sup>nd</sup> by MAKoltowich. Vote to approve was unanimous.
- 3) RCERB Website Changes – Discussion
  - JShaw said he talked with Amber Cofer and JShaw is going to propose some changes and send to RCERB for review.

### **Board Business - Watching**

- a) Y-12 Mercury Treatment Plant Project (Martha Deadrick)
- b) ORNL Entombment of Molten Salt Reactor (John Shaw)
- c) Small Modular Reactor Project - Clinch River Breeder Site & Draft EIS (John Shaw/Mary Anne Koltowich). Website: <https://www.nrc.gov/reactors/new-reactors/esp/clinch-river.html>
- d) TVA Kingston Fossil Plant Revised Biological Sampling Plan (Mary Anne Koltowich/Tim Joseph)
- e) TN Environmental Conference, March 18-20, 2019, Meadow View Conference Center, Kingsport.
- f) Environmental Show of the South, May 2019, Chattanooga.
- g) Indian Shadows

h) DOE Security Contracts

**Next RCERB Meeting: Scheduled for Thursday, February 7, 2019.**

**8:16 PM Adjourn**

**Incoming Documents (Attachments):**

TDEC Environmental Management Disposal Facility Fact Sheet.pdf

TDEC Comment Letter.pdf

Mercury Disposal in the Proposed EMDF.pdf

ARCADIS Metals Tracked page 1 of 3

ARCADIS Metals Tracked page 2 of 3

ARCADIS Metals Tracked page 3 of 3

County Commission Resolution Aquatic Weed.pdf

ORNL High Flux Reactor.pdf

257-91(f)\_GW\_Monitoring\_System\_Cert-R1\_KIF\_Peninsula\_Disposal\_Area.pdf

ORR\_Waste\_storage\_Site\_Plan\_Comment-20181021.pdf

**Recap of past year's RCERB Meetings:**

December 6, 2019: Quorum: (6/9): Routine board business

November 1, 2018: Quorum (6/9): Routine board business

October 4, 2018: Quorum (5/9): Officer elections; Routine board business

September 6, 2018: Quorum (5/8): Routine board business

August 7, 2018: Quorum (6/9): Routine board business

July 5, 2018: Quorum (6/9): Routine board business

June 7, 2018: Quorum (7/9): Routine board business

May 3, 2018: Quorum (7/9): Routine board business

April 5, 2018: Quorum (8/9): Welcome new RCERB member appointees; Routine board business

March 1, 2018: Quorum (4/6): Introduce candidates for new RCERB members; Routine board business

February 1, 2018: Quorum (5/6): Routine board business

January 3, 2018: Quorum (4/6): Routine board business