

NMSS

From: "Shawn Drake" <Shawn.Drake@state.tn.us>
To: <AMH1@nrc.gov> ~ NMSS/DWTMEP
Date: 1/23/03 12:38PM
Subject: Re: Correction on information.

Without retrieving files and doing any extensive research at this point, I can tell you what I know of the active TN licenses you mentioned below.

First, Duratek has two locations in TN, one in Memphis (previously Frank W. Hake, Inc.), the second in Oak Ridge. The Memphis location is primarily a storage facility with no Free Release (FR) authorization. The Oak Ridge operation is performed under five different licenses. R-73006, Gallaher Road, R-73008, Central Volume Reduction Facility (CVRF), R-73013, Incinerator, R-73016, Metal Melt Facility (MMF), R-73018, D&D license. Of these, three of them contain a FR amendment to their processes, Gallaher Road, CVRF, and MMF. Each one of the amendments is more specific to the license and the type of material they primarily process.

Without too much detail, Gallaher Road uses a drum surveyer (Canberra Q²) for release of solids. The CVRF still uses a manual survey technique to NRC Reg. Guide 1.86, and also a Green is Clean (GIC) authorization for materials received as "Class 3, non-impacted" as defined in NUREG 1761. MMF is more of a volumetric/gamma-spec analysis due to the distribution of material in a molded ingot.

USEcology, aka American Ecology, formerly known as Quadrex, Inc., has one primary license and processes materials through two unique systems called Bulk Survey For Release (BSFR), and Green is Clean (GIC). The GIC program is identical to Duratek's, material received and defined as "Class 3, non-impacted", where only a confirmatory survey of the material is required before sending it to a "permitted" industrial landfill. The BSFR program uses gamma-spec, geometries of the container (B-25's, B-12's, inter modals, drums [via Canberra Q² again]), in conjunction with manual surveys and waste manifest concentrations, to meet certain criteria defined in the authorization. The authorization restricts their releases to a dose limitation of 1mrem per year to maximally exposed individual (MEI), 30 years post closure of the landfill, to a resident farmer scenario. The computer analytics get quite hairy, and we have Sandra Szendy in Nashville (Joelle's replacement) 865-532-0392, who performs all of these determinations.

Allied Technology Group (ATG) has two licenses in TN, both in our region. Both licenses contain similar FR programs, mainly for materials other than resins or reformed residue solids (RFR). In fact, I recall an amendment that came through just the other day permitting their disposal program, Volumetric Clearance for Disposal (VCD), to send higher than proposed concentrations of U-238, U-235, & U-234 for disposal since their initial calculations used 4800 tons of material, but they have only sent 52 tons of material to date, which changes the "source term" in the computer calculations. The primary license that uses this program is R-73024.

Lastly, East TN Materials & Energy (M&EC) on the license R-01088, aka East TN Waste Treatment Center @ K-25, was recently obtained/bought by Perma-Fix, FL. At the time of the last inspection in April 2002, was intending to submit an application for a volumetric release program of their own. Currently, it is not in our file here, but it may be under review in Nashville. Their RSO told us that their focus has been on processing RCRA waste and minimal mixed waste at that time. Their intentions are to start more active processing of radwaste, and when that process begins they desire to have a FR program in place. The acquisition of their facility by Perma-fix may have changed some of their directives. I know that most of the liquid waste is sent to another licensee in our region, Diversified Scientific Services, Inc. (DSSI), R-73014. Some other waste is sent to Gainesville, FL, Perma-Fix for processing. Whether there is a FR program in place down there, I don't know.

Then of course is the infamous Manufacturing Sciences Corporation (MSC) volumetric release amendment for contaminated nickel, R-01078. This was the TN vs. NRC file for their FR program. Two

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things have occurred regarding this facility. First, the DOE placed a moratorium on release of all metals. Secondly, due to the aforementioned, the license is in the final stages of D&D for closure. Interestingly, USEcology performed the D&D project, and has processed much of the waste through their own FR program. Of course, the metals in question were returned to DOE.

As a side note to all the above, ATG remains in financial difficulty since their initial bankruptcy filing in November 2001. They have other facilities in the Richland, WA, area. USEcology remains on the selling block, and as of December 27, 2002, laid off their employees and discontinued all processing on site. They also have other facilities in Richland, WA, their corporate HQ is in Boise, ID. Perma-fix, Inc., has ownership of East TN M&EC, and I am sure there has been some program changes since our last inspection. We will be inspecting them sometime in February if things go as planned. Duratek, has some type of ownership in the Barnwell, SC, burial site that most of these facilities use, so there may be some questionable waste characterizations being imposed on facilities other than Duratek themselves. Previously, at an inspection at USEcology in October 2002, the management indicated part of there aged waste problem was due to Barnwell changing the waste acceptance criteria (WAC) from their facility.

Some other facilities I have heard of, but are not that familiar with include, RACE, Inc., in Memphis, TN, and Alleron, Inc., in Pennsylvania.

Sorry for the length of the e-mail, but I'm trying to summarize extensive and complete FR programs of different facilities, all of which have slightly different criteria defined in their authorizations, depending on the type, form, and media of the radioactive materials. I hope this helps answer some of your questions and/or concerns.

Enjoy the BBQ sauce!

>>> "Anthony Huffert" <AMH1@nrc.gov> 01/23/03 09:11AM >>>
Hello Shawn -

It would be greatly appreciated if you would shed some light on a question concerning licensed radioactive material/waste processors in TN and other States.

From your presentation at the last CRCPD E-23 meeting, I recall that there are a few TN licensees that are authorized to accept and process contaminated solid materials for disposition (survey incoming materials, decon if needed, and then dispose or "free release" them after a final survey).

The TN licensees I recall are Duratek, USEcology, ATG, and Materials & Energy Corporation (Perma-Fix, Inc.). Are there others in TN? Are these licensees still active?

It's my understanding that one company may operate more than one site in TN and that they may have a similar license in another State for the same type of operation. If you have information about other licensed processors in the US, that would be helpful too. I visited the CRCPD's website and found a list from July 2002, but that list does not have much detail about processors of metals or other solid materials.

Thanks again for the BBQ recipe and the help on this question.

Tony

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