

Studsvik, Inc. (Erwin) Timeline
(as of March 15, 2010)

90% owned by Studsvik, Inc. and 10% owned by Nuclear Fuel Services, Inc.
according to Maurice Carlson, President, Studsvik, Inc.
(The Erwin Record, Feb. 6, 2007, Page 10A)

Since Studsvik is co-located with and co-owned by Nuclear Fuel Services (NFS), Inc. we (members of the public) believe the cumulative impacts of Studsvik's operations should be taken into consideration along with those of NFS in any environmental assessment or environmental impact statement regarding the NFS request for a 40-year (or any) license renewal.

We know that Studsvik is not regulated by the Nuclear Regulatory Commission (NRC). They are regulated by the State of Tennessee Department of Environment and Conservation Office (TDEC), under an Agreement State contract between the Atomic Energy Commission and the State of Tennessee signed in 1965 (**TAB A**). TDEC says they follow the same guidelines as the NRC in Radiological Health inspections. The Air Inspector is in Johnson City (Preston Pierce, 423-854-5412) and the Radiological Inspector is in Knoxville (Billy Freeman, 865-594-5518). As of March 2007, Mr. Freeman said he had inspected Studsvik approx six times since they began in 1999. He said they routinely inspect Studsvik about every two years.

May 22, 1996

Tennessee Department of Environment and Conservation (TDEC), Tennessee Air Pollution Control Division (TAPCD) placed a Public Notice in The Erwin Record, Page 3. (**Note**: It took two research attempts and finally a call to Nashville TDEC Lacey Harden (615-532-0545), Deputy Director, Air Resources Division, Air Pollution Control and Radiological Health, to find the Studsvik Notice, BECAUSE it was at the bottom of the ad and appeared to be part of another permit request from Valley Castings and Manufacturing, Inc. (**TAB B**).

The obscure notice read: "The second applicant is Studsvik Processing Facility, LLC with a mailing address of 132 Harbison Boulevard, Suite 302B, Columbia, S.C. 29212. They seek to obtain an air contaminant permit (Division Identification Number 86-0054-01/44923) to construct a proposed Volume Reduction Energy Recovery Facility on Carolina Avenue, Erwin, TN 37650. The primary purpose of the facility is to receive radioactively contaminated ion exchange resins and other organic low level radioactive waste material from various generators, volume reduce this material utilizing a thermal destructive distillation and steam reforming processes, recover energy from gaseous process products, package the volume-reduced waste residue, and either ship the waste residue back to the generator or to a licensed low level waste facility for disposal. The main components of these processes are: thermal distillation vessel, steam reformer vessel, heat recovery unit, and off-gas control system. Waste residues from the distillation vessel are transferred to a carbon removal (steam reformer) step and then to a compaction and/or

palletizing system and then packaged in high integrity containers or other suitable packages for shipment or disposal. A demister/scrubber system and HEPA filters would be used for pollution control. There would be physical construction and regulated air contaminants would be emitted by this source. Mr. R. Thompson is the assigned Division person.”

According to Mr. Charles Arnott, TDEC (615-532-0364), they received one telephone call from a concerned citizen in Erwin, (Mr. Peter Zars).

- September 10, 1996 Studsvik received a Tennessee Air Pollution Control Board (TAPCB) Permit 944923P to Construct or Modify an Air Contaminant Source for Volume Reduction Energy Recovery Facility including Thermal Distillation, Steam Reformation, Heat Recovery with Demister, Scrubber, and HEPA Filter controls. Expiration Date: September 1, 1999.
- August 13, 1997 First news article about Studsvik, Inc. appeared in The Erwin Record. “**Best spot in the world’: Studsvik breaks ground.**” The article described Studsvik as an “**environmental restoration facility.**” The article talked about “low-level” waste, but never mentioned the word “radioactive.” Toward the end of the article, it stated that they provided support to the “nuclear” industry, and they would locate on land leased from NFS. (TAB C)
- November 19, 1997 Second article appeared in The Erwin Record, “**Unicoi County native named to position at Studsvik plant.**” Article said that Studsvik had hired Mike Tester, Certified Health Physicist with 24 yrs experience and that Tester was a former NFS employee. In this small article the word “nuclear” was mentioned. (TAB D)
- September 30, 1998 Third article appeared in The Erwin Record, when the building was completed and Studsvik had a grand opening, with tours and a barbecue, “**Plant dedication an international affair.**” The Swedish Ambassador to the United Nations attended. Mark Stevens, the new Editor of The Erwin Record, wrote the article and described **exactly** what they were and what they would do, which is process radioactive resins from nuclear power plants. (TAB E)
- June 10, 1999 Permit 944923P Amended, signed by Tracy Carter, Technical Secretary, TAPCB, (615-532-0364). (TAB F)
- October 8, 1999 Studsvik Operating Permit Renewal with new number #051789P; Expiration Date: November 1, 2008. (TAB G)
- April 30, 2000 **NRC Event Report 36970** – NRC Notified by Tennessee Division of Radiological Health on May 4, 2000. A spill involving a 5000 square foot area contaminated with an estimated 0.49 millicuries of mixed

fission/activation products (primarily Cobalt-60). **Two personnel contaminated (TAB H)**

- May 12, 2001 Leakage in process system; facility shut down four (4) weeks. Studsvik Press Release (**TAB H**)
- May 18, 2001 **NRC Event Report 38018** – NRC Notified by Tennessee Division of Radiological Health on May 21, 2001. A spill of approximately four cubic feet occurred from one process vessel. Estimated 29 millicuries of activation and mixed fission products were released during the spill. **Five personnel contaminated. (TAB H)**
- May 2002 “In late May and early June 2002, Nuclear Fuel Services, Inc. contracted with Shonka Research Associates (SRA) to perform radiological survey of the 5-acre site that will be the location of the BLEU Complex. This facility will produce blended low-enriched uranium (BLEU) from surplus high-enriched uranium for use at the Brown’s Ferry Plant. The survey utilized a large complement of 14 radiation detectors mounted on a 4-wheel drive truck. The detectors included spectrometers, position-sensitive beta detectors and several instruments to measure various components of the background. The contaminants of concern included 12 nuclides derived from uranium at arbitrary enrichments, thorium, Tc-99, and transuranic nuclides. **One of the significant challenges of this survey was to account for the highly variable exposure rates from the adjoining Studsvik Processing Facility (SPF).**” (NFS). (**TAB I**)
- April 2006 Studsvik acquired the Memphis plant called RACE, and said it gave them an "extra" foothold in the U.S. (**TAB J**) (The first was in Erwin).
- June 30, 2006 Studsvik Payment of Annual Emissions Fee to TDEC - \$1,323.75 for 105.9 tons per year (**TAB K**)
- (Aug06-May07) The ATSDR (Agency for Toxic Substances and Disease Registry) conducted a Public Health Assessment on Nuclear Fuel Services, Inc., but no mention was made of Studsvik. Additionally, Dr. Paul Charp said he could not address radiological issues. He said he would get back to the petitioner and the City/County government with information about who could address the radiological issues. No one has heard from him as of March 2010. Final ATSDR Report was dated May 29, 2007.
- October 2006 Filter breakdown; 2-week work stoppage (**see TAB H**)
- February 8, 2007 Studsvik applied for permit to build incinerator (partial doc) (**TAB L**)
- Feb. 2-20, 2007 The community said “NO!” Petitions were circulated and about 2,000 signatures were obtained, to include approximately 250 NFS employees and the NRC resident inspector. Attached are 24 selected

- news articles (Feb. 2-20, 2007) about the community uprising over the incinerator. (TAB M)
- February 16, 2007 Compromise Reached, Proposed Incinerator in Erwin Will Not be Built, Studsvik News Release. (TAB N)
- September 7, 2007 Studsvik signs teaming agreement with Waste Control Specialist LLC (WCS). Studsvik Press Release (TAB O)
- February 21, 2008 Request for Amendment to License Number R-86011-E17, dated May 3, 2007 (TAB P)
- September 8, 2008 Operating Permit Issued Pursuant to Tennessee Air Quality Act. Permit #062308P, Emission Source Ref. No. 86-0054-01. Permit signed by Barry Stephens, Technical Secretary, TN Air Pollution Control Board. Permit expires on November 1, 2017. (TAB Q)
- December 2, 2008 Studsvik Press Release, “**First contract signed with FPL for new U.S. waste model**” states that “Studsvik will treat the waste at the Erwin facility in the same way as before and thereafter take responsibility for storage and final disposal, for which a storage agreement has been reached with Waste Control Specialists (WCS) in Texas.” (TAB R)
- December 22, 2008 Studsvik to return to full operation. Johnson City Press (TAB R)
- December 23, 2008 Contract will keep Studsvik Operating, The Erwin Record (TAB R)
- June 23, 2009 Studsvik will close corporate offices in downtown, The Erwin Record Page 1A&6A (TAB S)
- Jan-Sep, 2009 Studsvik Interim Report, USA portion (TAB T)
- December 31, 2009 Studsvik/RACE-Memphis fined \$650,000 by EEOC to settle racial harassment and retaliation suit (TAB U)
- January 29, 2010 Studsvik Affidavit taking title and liability to waste for Vogtle 3 & 4 (TAB V)
- February 11, 2010 Studsvik Q4 Report (2 slides); Current Focus: “Get waste into Erwin” (TAB W)

(A product of the Erwin Citizens Awareness Network, P. O. Box 1151, Erwin, TN 37650)