



October 14, 2005

Overnight Mail and email (wam@nrc.gov)

U.S. Nuclear Regulatory Commission, Region IV
Attn: Bill Maier, State Liaison Officer
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011
(817) 860-8100

Subject: Nucor Steel – Jewett Texas
Request for Expedited Part 20.2002 Alternate Disposal Authorization and
NRC Part 30.11 Specific Exemption

Gentlemen:

Nucor Steel – Jewett Texas (Nucor) seeks an expedited review and authorization for alternate disposal of cesium contaminated emission control dust (K061). The contaminated K061 resulted from a recent melt of an approximately 0.37 GBq (10 mCi) ¹³⁷Cs source in our electric arc furnace on or about August 28, 2005. Nucor also requests an expedited issuance of a specific byproduct material exemption under Part 30.11, making the waste eligible for disposal at the US Ecology Idaho Inc. (USEI) Grand View, Idaho Subtitle C RCRA disposal facility.

Nucor is submitting this application to the Texas Department of State Health Services (DSHS) and the U.S. Nuclear Regulatory Commission (NRC). This dual submission is based on Texas' role as an NRC Agreement State with regulatory authority for licensed activities within the State of Texas and the NRC's role in responding to exemption requests for the Grand View facility (Idaho is not an Agreement State) and providing technical assistance. Due to the time-sensitive nature of this request, Nucor requests that the two agencies coordinate activities to resolve any procedural matters and otherwise proceed as needed to achieve timely regulatory action consistent with protection of public health and safety.

Chase Environmental Group, Inc., (Chase) Kentucky radioactive materials license number 201-605-90 is currently managing the cesium contaminated K061 materials on-site in Jewett for Nucor. Chase is managing these materials in Texas consistent with applicable license reciprocity agreements. The material is currently contained in 17 rail hopper cars, some of which may not have to be disposed of at USEI. Since Nucor does not have facilities on-site for unloading the waste out of the hopper cars or treating the waste on-site, an off-site remedy is necessary. Additionally, no RCRA Subtitle C disposal facilities in Texas have the capability to unload hopper cars. Due to the small size of the cesium source that was melted, contamination levels of the material in the hopper cars are very low. Preliminary measurements indicate 0.925 Bq/g or less. Nucor estimates that as much as 2,400 tons of waste may be generated as a result of the incident. Given the activity of the source as 0.37 GBq (~10 mCi) the average concentration over the total waste volume would be 0.2 Bq/g or 5.5 pCi/gr.

Nucor has determined in consultation with USEI that the Grand View, Idaho RCRA Subtitle C treatment, storage and disposal facility is capable of unloading the hopper cars and treating the waste. The USEI facility routinely treats and disposes K061 (a listed hazardous waste) and is also permitted by its regulatory authority, the Idaho Department of Environmental Quality (IDEQ), to receive exempt ^{137}Cs contaminated materials at concentrations (averaged over the conveyance) not to exceed 0.925 Bq/g (25 pCi/g).

With the alternate disposal authorization and Part 30.11 exemption, this material can be stabilized at USEI with adequate controls in place for the diffuse, low concentration radioactive material present in the waste. The NRC is deemed to be the appropriate authority to issue an exemption in this case, since it regulates by-product material in the state of Idaho. In addition, by the terms of its RCRA permit, USEI must notify the Idaho Department of Environmental Quality (IDEQ) and complete a state concurrence process set forth in its permit before it may receive a waste stream exempted by the NRC. In accordance with state law and regulation, IDEQ requires that material be exempted by the NRC prior to this concurrence review. Furthermore, IDEQ recently approved a RCRA Class 2 Permit Modification for the USEI RCRA facility allowing up to 0.925 Bq/g or 25 picocuries per gram of ^{137}Cs .

Nucor believes that this material qualifies for alternate disposal at that Idaho facility since the NRC has approved alternate disposal of ^{137}Cs previously at USEI at levels, "...up to thirty picocuries per gram ...".

Nucor respectfully request an expedited review and issuance of the alternate disposal authorization and NRC exemption to safely manage the wastes related to this inadvertent source melt and to safely resume normal operating activities at our steel mill in Jewett, Texas.

Sincerely,



Noel V. Luera
Environmental Manager

Attachments:

- Attachment 1 - Authorization and Exemption Support Material
- Attachment 2 – Recent Description of USEI Site
- Attachment 3 – USEI 2005 Performance Assessment Model Output

cc: Steve Welling, Vice President, US Ecology Inc.