

AGENDA TALKING POINTS FOR ROUND TABLE DISCUSSION DECOMMISSIONING OF PHOSPHORIC ACID PLANTS (JUNE 2006)

The following are several talking points that should be taken into consideration regarding the decommissioning of phosphoric acid plants.

DEFINITION:

The definition of TENORM is greatly misunderstood by the industry and even by some regulators. This makes licensing, enforcement and decommissioning cumbersome and open to interpretation. Regulation of TENORM in most Agreement States began in the 1980s in response by the regulators to their initial understanding of the buildup capability of radium-226 scale, and that the material plated on waste items was going to equipment repairers, salvors and commercial landfills. Some Agreement States began adding TENORM to the fixed industrial gauge licenses. It created a very large potential of liability for the industry to manage. As the phosphate industry was a major industry in producing TENORM, the phosphate industry has helped define what is regulated as TENORM.

Regulators have been adding TENORM to the existing gauge licenses to have a “hammer” to control the handling and disposition of these materials. TENORM has yet to formally defined in some Agreement State regulations and has been regulated by policy and administration of licenses. The problem occurs when the desire to terminate a license (decommission a plant) and to remove the TENORM from the license. The Agreement State uses the licensing process to define the TENORM “footprint” which is the primary concern upon decommissioning.

REGULATIONS & REGUIDES:

Certain Agreement State regulations describe the basic criteria for the timing of decommissioning of a previously licensed activity. The primary purpose of these regulations was to ensure the proper decommissioning of licensed activities that were using the radioactive materials for commercial purposes. The TENORM issue has somewhat skewed the problem in that there is no redeemable value in TENORM and is a nuisance. Thus, the timing of decommissioning plants may become a low priority. The provisions of this paragraph take into consideration when activities have ceased and provides timetables to submit a decommissioning plan.

The radioactive materials licenses govern the existing disposition of TENORM by way of incorporating the Radiation Protection Manual (RPM) which is approved through the licensing process. The RPM describes the activities that will be performed operationally and for the disposal of contaminated items. Most phosphoric acid plants have had the authorization to dispose of items on the phosphogypsum stack which constitutes

“DISPOSAL”. Since the gypsum stack has been established by the Florida Institute of Phosphate Research (FIPR) and the State of Florida has a non-regulated item as TENORM, this provides an unprecedented ability to render something that was previously regulated as now, not regulated. The primary basis for this was the gypsum stack will not be reused by the public and will have other perpetual care requirements as prescribed by the State Department of Environmental Protection. Thus, it is not a public concern.

The condition on the licenses referencing TENORM specifies a maximum gamma exposure rate of 50 microroentgens per hour as the release level of contaminated equipment to be transferred to unlicensed persons. This threshold also applies to decommissioning of the plant and is routinely used the GO/NO-GO levels in plants. This metric may be different in other Agreement States.

The basis for determining the decommissioning tasks to prove the site as releaseable is described in the Multi-Agency Radiation Survey & site Investigational Manual (MARSSIM). This document describes basic levels of radioactive operations and radioactivity at plants and the parallel tasks (minimum number of surveys and samples) for the commensurate type of activity. Since the number of decommissioning of plants for TENORM is minimal, reliance on the guidelines described in the document can be somewhat rigid.

APPROACH when applying for Decommissioning:

Keep the FOOTPRINT focused: The licensable activities that added TENORM to the license are directly attributed to the phosphoric acid plant and the filter pan assembly area. It is important to keep the regulator focused to this as the primary area that is licensed and to be released from the license. It is important to keep in perspective that the gypsum stack is NOT considered TENORM.

Expand the Background: The release concentration of soils as described in MARSSIM (with guidance from the USEPA) is lower than the levels around the phosphoric plants. Getting the regulator to understand that the MARSSIM numbers are guidelines only and that comprehending the scope of the phosphate industry over the years, makes it difficult to implement a strict interpretation of MARSSIM.

Provide spot remediation: It is recommended that when radiation levels and concentrations are higher than background levels in isolated areas away from the “footprint”, that minor remediation of removal and backfill be offered. This provides the regulator with some feeling that remediation is a goal. The alternative would be the regulator dictating the remediation scope which most likely could be prohibitive.

Consider Brownfield: If the levels are in and around the plant are so much higher than what remediation could offer, looking into deed restrictions or licensing limitations may be an option. One concern if doing this would be that as time goes on regulations and

policies may get more restrictive, thus more costly to finalize the remediation at a future date.

