SUBJECT: EXRADIN ION CHAMBERS MADE WITH A150 TISSUE EQUIVALENT PLASTIC (T1, T2, T11, T11TW, T14, T14P)

The following information is provided as a service to our users and customers:

For many years, a select number of Exradin Ion Chamber models have been offered by Exradin and later Standard Imaging (Standard Imaging acquired Exradin in 2000) in a T version. These T versions, which included the T1, T2, T11, T11TW, T14 and T14P Exradin Ion Chambers, utilize some components made of A150 material.

A150 is an Exradin proprietary plastic blend designed to be tissue equivalent. It is also known as Shonka tissue equivalent plastic. It incorporates nylon in its composition. Nylon is known to have hygroscopic properties.

Even though these T versions of Exradin Ion Chambers are designed to be waterproof, as a result of the hygroscopic properties of A150, they are not recommended for submerged use in water. Submerged use typically involves ion chamber use with a water tank.

By definition, the hygroscopic properties of A150 may cause the material to absorb minute amounts of water under certain conditions. This water can alter the physical characteristics of the material to an extent which may cause the ion chamber’s measurements and calibration factors to change over time.

For submerged use in water, Standard Imaging recommends the use of the A and P versions of Exradin Ion Chamber specifically designed to be waterproof. The A versions include the A1, A1SL, A2, A10, A11, A11TW, A12, A12S, A14, A14SL, A16, and A18, and are made with C552 air equivalent plastic. The P versions include the P2, P11 and P11TW, which are made with D400 polystyrene equivalent plastic.

If required, T versions of Exradin Ion Chambers may also be used in water provided they are shrouded in a waterproof sleeve.

Future User Manuals for Exradin Ion Chambers will include similar information with regards to the T versions of the ion chambers.

If there are any questions or comments regarding this information, please contact Standard Imaging or your authorized dealer.