**Employer’s Written Procedure 10**

**Establishing and Use of Diagnostic Reference Levels**

1. **Objectives**

Diagnostic reference levels (DRLs) provide standard values for dose-related quantities against which assessed values for exposures carried out in the host boards can be compared.

DRLs are applied to the typical examinations for groups of standard sized individuals and should not be applied to individual patient procedures.

**2. Responsibilities**

NHS National Services Scotland (NSS) will set and document the national DRLs for the Scottish Breast Screening Programme. These will be documented in a Level 2 document (NSS100-010.01). This task will be carried out by NSS Medical Physics Experts (MPEs) in conjunction with the MPEs in the Scottish Mammography Physics Group (SMPG), with due regard to data from local, national and European dose surveys. NSS MPEs will ensure that the national DRLs are reviewed annually by the Group.

The Lead Medical Physicist will ensure that information on recommended DRLs is passed to the chair of the SMPG. The chair will circulate the information through the SMPG for consideration by host Health Boards and adoption, if thought fit, as local DRLs. The host health boards will be responsible for making the DRLs available to operators.

NHS National Services Scotland (NSS) through NSS Medical Physics within NHS Assure is responsible for performing an assessment of the standard breast dose on each X-ray unit in the Scottish Breast Screening Programme. The assessment will be made during six-monthly quality assurance tests and will use clinical settings. Standard breast dose will be included in the physics report issued following each survey.

NSS Medical Physics is also responsible for performing a patient dose survey at least every three years with data they collect directly, as described in the local procedure (FAC407-052). Dose audits will also be undertaken following the introduction of new equipment. NSS Medical Physics will send reports of these audits and surveys, along with recommendations on any necessary actions, to the superintendent radiographer, the QARC chair, the Regional Quality Assurance Radiographer (RQAR), the commissioners for Specialist Screening Services in NSS and other locally nominated representatives.

If the MPE has concerns that the DRLs adopted were unacceptable high or regularly being exceeded, they would discuss possible action with the Host Board and would inform the commissioners of the breast screening service. If this did not resolve the situation, the Escalation Procedure as defined in the Service Agreements with the Host Boards would be enacted.

Investigation will be undertaken if doses are low to ensure that the image quality is still acceptable.

The MPE will provide advice and information as required based on the DRL and dose audit information with respect to the selection of equipment and methods to ensure that each exposure is as low as reasonably practicable.

**3. Exception**

This procedure only applies to the work of NSS Medical Physics and is not applicable to the NSS Dental Service.