Medical Physicist involvement in Equipment Adjustments, Changes, or Repairs

For any adjustment, change, or repair not listed in the table below, or if the facility is unsure as to the full extent of the adjustment, change, or repair, the facility should consult their medical physicist to determine the proper extent of his or her involvement in evaluating the item.

Item	Major Repair	Medical Physicist Involvement
Automatic Exposure Control		
AEC replacement	Y	MP conducts evaluation in person
Thickness compensation internal* adjustment	Ν	MP oversight
AEC sensor replacement	Y	MP conducts evaluation in person
AEC circuit board replacement	Y	MP conducts evaluation in person
Density control – internal* adjustme	nt N	MP oversight
Bucky (New to Facility) Replacement		
AEC sensor also replaced	Y	MP conducts evaluation in person
AEC sensor not replaced	Ν	MP oversight
FFDM detector also replaced	Y	MP conducts evaluation in person
FFDM detector not replaced	Ν	MP oversight
Cassette Replacement		
Same screen speed	Ν	MP involvement optional
Faster screen speed	Ν	MP oversight
Slower screen speed where the	Y	MP conducts evaluation in person
dose increase may exceed 3.0 mGy for the standard breast		
Collimator		
Replacement	Y	MP conducts evaluation in person
Reassembly with blade replacement	Y	MP conducts evaluation in person
Adjustment	Ν	MP oversight
Compression Device		
Pressure adjustment Thickness scale accuracy	Ν	MP involvement optional
adjustment but only if it affects AEC	C N	MP oversight
performance Repair of auto decompression	Ν	MP involvement optional

Item	Major Repair	Medical Physicist Involvement
Compression Paddle		
Paddle (new to facility) replacement	Ν	MP oversight
Deflection adjustment	Ν	MP oversight
Adjustment due to extension beyond allowable limit, or visibility on image		MP oversight
Darkroom		
Repair of light leaks	Ν	MP involvement optional
Safe light change	Ν	MP involvement optional
Film Type/Speed Change	Ν	MP oversight
Processor		
Chemistry type change	Ν	MP involvement optional
Fixer/Developer replacement	Ν	MP involvement optional
Installation	Y	MP conducts evaluation in person
Reassembly	Y	MP conducts evaluation in person
Replenishment rate adjustment	Ν	MP involvement optional
Roller replacement	Ν	MP involvement optional
X-ray Unit		
kVp, mA or time internal* adjustment	nts N	MP oversight
High voltage generator replacement	Y	MP conducts evaluation in person
X-ray tube replacement	Y	MP conducts evaluation in person
Filter replacement	Y	MP conducts evaluation in person
Installation	Y	MP conducts evaluation in person
Reassembly	Y	MP conducts evaluation in person
Manufacturer's software	Y	MP conducts evaluation in person
modifications (see approved		
alternative standard)		
FFDM detector replacement or repai	r Y	MP conducts evaluation in person
FFDM Display (monitor)/Printer	Check FFDM	Follow FFDM manufacturer's QC
Replacement	manufacturer's QC manual	manual

* Internal adjustments refer to equipment adjustments that typically cannot be made by the operator.