Appendix 3 - Minimal Impairment Criteria for Playing Standing Badminton with Impairment at the Lower Limb

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
Hypertonia --- **Ataxia** --- **Athetosis**	Cerebral palsy, stroke, acquired brain injury, multiple sclerosis --- Ataxia resulting from cerebral palsy, brain injury, Friedreich's ataxia, multiple sclerosis, spinocerebellar ataxia --- Cerebral palsy, stroke, traumatic brain injury	Spastic/ataxic/athetoid hemiplegia/ diplegia/ quadriplegia/ monoplegia with moderate involvement of lower limb but with no or very mild involvement of upper limbs. Demonstrate a limitation in function based on spasticity, ataxia, athetosis or dystonic movements while performing during match or training. The Player may walk with a slight limp but runs more fluidly. Clear evidence must include spasticity grade 1-2 in the affected limbs (at least one leg must be affected). A clear difference needs to be demonstrated between active ranges of motion vs. passive. In addition, a clear difference between fast PROM against slow PROM needs to be demonstrated. Plus ONE of these signs: 1. Upper motor neuron reflex pattern must be demonstrated (one of these signs): • Positive unilateral babinski • Clear unilateral clonus 4 beats or more • Noticeably brisk reflexes or clear difference in reflexes left vs. right leg	Spastic/ataxic/athetoid hemiplegia/diplegia/ quadriplegia with marked involvement of lower limb but with no or only mild impairment of upper limbs. Demonstrate a limitation in function based on spasticity, ataxia, athetosis or dystonic movements while performing during match or training. The Player walks or runs with a limp due to spasticity in the lower limb. Clear evidence must include spasticity grade 2-3 in the affected lower limb. A clear difference needs to be demonstrated between active ranges of motion vs. passive. In addition, a clear difference between fast PROM against slow PROM needs to be demonstrated. The Player has difficulty walking on his heel on the impaired side and has significant difficulty with hopping and balancing and side stepping on the impaired leg or side. Plus ONE of these signs: 1. Upper motor neuron reflex pattern must be demonstrated (one of these signs): • Positive unilateral 41 babinski

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
		2. Irregular migrating contraction (chorea) and/or writhing movements (athetoid) 3. Leg length difference and/or difference of muscle bulk of more than 2 cm 4. 4. Dysmetria and/or dyssynergia In monoplegia the hip joint must be involved with limitations in PROM or difference in ROM active versus passive. For ataxia and athetosis the Player must have clear signs of cerebellar dysfunction with incoordination of the lower limb. Shows moderate difficulty in stopping, starting, turning, balance and explosive movements.	• Clear unilateral clonus 4 beats or more • Noticeably brisk reflexes or clear difference in reflexes left vs. right leg 2. Irregular migrating contraction (chorea) and/or writhing movements (athetoid) 3. Leg length difference and/or difference of muscle bulk of more than 2 cm 4. Dysmetria and/or dyssynergia For ataxia and athetosis the Player must have clear signs of cerebellar dysfunction with incoordination of the lower limb. Shows marked difficulty in stopping, starting, turning, balance and explosive movements
Limb Deficiency	Amputation resulting from trauma or congenital limb deficiency (dysmelia).	1. Unilateral amputation of half of the foot, measured on the non-amputated foot from the tip of the great toe to the posterior aspect of calcaneus. 2. Equivalent to the above description.	1. Unilateral amputation through or above the knee (AK amputation). 2. Double below knee (BK) amputation. Equivalent congenital limb deficiency or dysmelia that is similar to Point 1 or 2 above.

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
Impaired Passive Range of Movement (PROM)	Aarthrogryposis, ankylosis, post burns joint contractures)	Impairment of PROM that meets TWO (2) of the following criteria in one or both lower limbs: Criterion #1 – Hip flexion deficit of >45 degree. Criterion #2 – Hip Extension deficit of >25 degree. Criterion #3 – Knee Flexion deficit of >60 degree Criterion #4 – Knee Extension deficit of >30 degree. Criterion #5 – Less than or equal to 10 degree ankle dorsiflexion and a maximal ankle PROM of 10 degree Criterion #6 – Less than or equal to 20 degree plantar flexion and a maximal ankle PROM of 10 degree	Impairment of PROM that meets FOUR (4) of the following criteria in one or both lower limbs Criterion #1 – Hip flexion deficit of >45 degree. Criterion #2 – Hip Extension deficit of >25 degree. Criterion #3 – Knee Flexion deficit of >60 degree Criterion #4 – Knee Extension deficit of >30 degree. Criterion #5 – Less than or equal to 10 degree ankle dorsiflexion and a maximal ankle PROM of 10 degree Criterion #6 – Less than or equal to 20 degree plantar flexion and a maximal ankle PROM of 10 degree Or THREE (3) criteria of PROM Plus ONE criteria of Impaired muscle power or leg length deficiency of 4 cm

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
Impaired muscle power	Spinal cord injury, muscular dystrophy, brachial plexus injury, Erb palsy, polio, spina bifida.	Impairment of Muscle power that meets TWO (2) of the following criteria in one or both limbs: Criterion #1 – Hip flexion loss of 3 muscle grade points (muscle grade of two). Criterion #2 – Hip extension loss of 3 muscle grade points (muscle grade of two) Criterion #3 – Hip Abduction loss of 3 muscle grade points (muscle grade of two). Criterion #4 – Hip Adduction loss of 3 muscle grade points (muscle grade of two). Criterion #5 – Knee flexion loss of 3 muscle grade points (muscle grade of two) Criterion #6 – Knee extension loss of 3 muscle grade points (muscle grade of two). Criterion #7 – Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two). Criterion #8 – Ankle dorsiflexion loss of 3 muscle grade points (muscle grade of two) Or	Impairment of Muscle power that meets FOUR (4) of the following criteria in one or both limbs: Criterion #1 – Hip flexion loss of 3 muscle grade points (muscle grade of two). Criterion #2 – Hip extension loss of 3 muscle grade points (muscle grade of two) Criterion #3 – Hip Abduction loss of 3 muscle grade points (muscle grade of two). Criterion #4 – Hip Adduction loss of 3 muscle grade points (muscle grade of two). Criterion #5 – Knee flexion loss of 3 muscle grade points (muscle grade of two) Criterion #6 – Knee extension loss of 3 muscle grade points (muscle grade of two). Criterion #7 – Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two). Criterion #8 – Ankle dorsiflexion loss of 3 muscle grade points (muscle grade of two) Or THREE (3) criteria of PROM

Eligible Impairment Type	Examples of health conditions	Sport Class SL4	Sport Class SL3
		Back and Torso: Severely reduced mobility of a permanent nature, for example scoliosis measuring over 60 degrees curve as measured by the Cobb method. X-ray proof is necessary.	Plus ONE criteria of Impaired muscle power or leg length deficiency of 4 cm
Leg length difference	Congenital or traumatic cause of bone shortening in one leg	The difference in length between right and left leg should be at least 7 cm. Measurements to be taken from the inferior aspect of the anterior superior iliac spine to the most medial tip of medial malleolus on same side.	Leg length difference equivalent to single above knee amputation