Terminology

**Dosimeter Group**: A general grouping of dosimeters.  The intent here is that once you've chosen a specific Dosimeter Group for entering measurements, your choices will be narrowed to dosimeters belonging to that group.  The main example of this is the various WBD groupings.  e.g., "Whole Body Dosimeter - 6 Piece" has six specific dosimeters associated with it.  That is its Dosimeter Group.  You are free to enter as many groups as are required to represent the measurements taken.  This helps focus the interface for data entry, can serve as a mnemonic device to remind you which entries remain in the group.  Each Dosimeter Group has one or more specific Dosimeter Descriptions, one or more Dosimeter Matrix to choose from, and may have some Body Parts associated as well.

**Dosimeter Description**: Simply a description of a dosimeter.  In the past, Dosimeter Location may have been used.  But some dosimeters are not really at a specific location, which tells us that the term wasn't quite correct.  Dosimeter Description seems to capture the meaning of all uses we have seen, including Field Fortifications, and helps us move away from the temptation of tying dosimeters to specific body parts.

**Dosimeter Matrix**: While the Dosimeter Description generally answers "where" a measurement is taken, the Dosimeter Matrix answers "how" a measurement is taken. Each Dosimeter Group has one or more Dosimeter Matrix choices available to use in a Dosimeter Measurement.

**Body Parts: Specific areas that can be covered by associated clothing.**

**Clothing**: Generic category of things that can be worn. Each Clothing entry is associated with a specific Body Part.

**Layer**: Clothing worn, but not measured.

**PPE Layer**:  Clothing worn *and* measured. Part of a PPE Measurement.

**Measurement**: Contains a Dosimeter Matrix, Input Residue, Input Limit of Quantification (LOQ), and Input Limit of Detection (LOD). This is generally an "inner" measurement.

**PPE Measurement**: A Measurement that is associated with a specific PPE Layer (Body Part and Clothing). This is generally an "outer" measurement.

**Dosimeter Measurement**: This is the abstraction that represents the measurements outlined in the spreadsheet AHETF provided. A Dosimeter Measurement is for a specific Dosimeter Group, Dosimeter Description, and Measurement. It can have zero or more Layers, and zero or more PPE Measurements.

**Field Fortification**: Has an Event ID, a Dosimeter Description, a list of Monitoring Units (MU) it applies to (can also specify that it applies to "All" MUs), and a list of Field Fortification Entries.

**Field Fortification Entry**: Has a Description (e.g., "low", "mid", "high"), a Fortification Level, and a Fortification Adjustment.

Mappings

Values appearing below are within double quotes. These are the exact values used within AHED.

## Dosimeter Groups

These are the Dosimeter Groups identified in the spreadsheet AHETF provided:

* "Whole Body Dosimeter - 1 Piece"
* "Whole Body Dosimeter - 2 Piece"
* "Whole Body Dosimeter - 3 Piece"
* "Whole Body Dosimeter - 4 Piece 2 Torso"
* "Whole Body Dosimeter - 4 Piece 2 Legs"
* "Whole Body Dosimeter - 5 Piece"
* "Whole Body Dosimeter - 6 Piece"
* "Face and neck wipes"
* "Head patches"
* "Hand Dosimeters"
* "Feet Dosimeters"
* "Inhalation Dosimeters"
* "Field Fortification Dosimeters"

There are two 4-piece WBD. One with 2 Torso dosimeters, and one with 2 Leg dosimeters. We've also added a 5-piece option not present in the spreadsheet that has 2 Torso and 2 Leg dosimeters.

The spreadsheet did not have a separate "Head patches" entry, which we discussed at our last meeting. With this mapping, the head has a separate and distinct group of dosimeters. The Use Cases the AHETF will be providing should define how the Face/Neck and Head measurements are related during computations.

## Dosimeter Descriptions

Dosimeter Descriptions are specific to a single Dosimeter Group. The Dosimeter Descriptions extracted from the spreadsheet, and the Dosimeter Group each is associated with are:

### "Whole Body Dosimeter - 1 Piece" <- Dosimeter Group

* + "1 piece ID - whole body" <- Dosimeter Description

### "Whole Body Dosimeter - 2 Piece"

* + "2 piece ID - lower body"
  + "2 piece ID - upper body"

### "Whole Body Dosimeter - 3 Piece"

* "3 piece ID - arms"
* "3 piece ID - torso"
* "3 piece ID - legs"

### "Whole Body Dosimeter - 4 Piece 2 Torso"

* "4 piece ID (torso) - arms"
* "4 piece ID (torso) - front torso"
* "4 piece ID (torso) - rear torso"
* "4 piece ID (torso) - legs"

### "Whole Body Dosimeter - 4 Piece 2 Legs"

* "4 piece ID (legs) - arms"
* "4 piece ID (legs) - whole torso"
* "4 piece ID (legs) - lower legs"
* "4 piece ID (legs) - upper legs"

### "Whole Body Dosimeter - 5 Piece"

* "5 piece ID - arms"
* "5 piece ID - front torso"
* "5 piece ID - rear torso"
* "5 piece ID - lower legs"
* "5 piece ID - upper legs"

### "Whole Body Dosimeter - 6 Piece"

* "6 piece ID - lower arms"
* "6 piece ID - upper arms"
* "6 piece ID - front torso"
* "6 piece ID - rear torso"
* "6 piece ID - lower legs"
* "6 piece ID - upper legs"

### "Face and neck wipes"

* "Swab - detergent water"
* "Swab - organic solvent"
* "Swab - water"

### "Head patches"

* "Patch (inner) on hat"
* "Patch (outer) on hat"

### "Hand Dosimeters"

* "Hand wash - detergent water"
* "Hand wash - organic solvent"
* "Hand wash - water"

### "Feet Dosimeters"

* "Socks"

### "Inhalation Dosimeters"

* "OVS front section"
* "OVS back section"
* "OVS whole matrix"
* "Glass fiber filter front section"
* "Glass fiber filter back section"
* "Glass fiber filter whole matrix"

### "Field Fortification Dosimeters"

* "Inner dosimeter (FF)"
* "Outer dosimeter (FF)"
* "Patch (outer) on hat (FF)"
* "Patch (inner) on hat (FF)"
* "Face/neck swab - detergent water (FF)"
* "Face/neck swab - organic solvent (FF)"
* "Face/neck swab - water (FF)"
* "Hand wash - detergent water (FF)"
* "Hand wash - organic solvent (FF)"
* "Hand wash - water (FF)"
* "Socks (FF)"
* "Inhalation - OVS (FF)"
* "Inhalation - glass fiber filter (FF)"

## Dosimeter Matrices

These matrices represent the only choices available for each of the Dosimeter Groups listed.

### "Whole Body Dosimeter - 1 Piece"

### "Whole Body Dosimeter - 2 Piece"

### "Whole Body Dosimeter - 3 Piece"

### "Whole Body Dosimeter - 4 Piece 2 Torso"

### "Whole Body Dosimeter - 4 Piece 2 Legs"

### "Whole Body Dosimeter - 5 Piece"

### "Whole Body Dosimeter - 6 Piece"

* "100% cotton"
* "Cotton / polyester blend"

### "Face and neck wipes"

* "100% cotton gauze"
* "4 mL of 0.01% v/v AOT solution"

### "Head patches"

* "100% cotton patch"
* "Patch - other"

### "Hand Dosimeters"

* "4 mL of 0.01% v/v AOT solution"

### "Feet Dosimeters"

* "85% cotton, 15% nylon"

### "Inhalation Dosimeters"

* "Glass fiber filter"
* "Sorbent"

### "Field Fortification Dosimeters"

* "100% cotton"
* "Cotton / polyester blend"
* "100% cotton gauze"
* "4 mL of 0.01% v/v AOT solution"
* "100% cotton patch"
* "Patch - other"
* "85% cotton, 15% nylon"
* "Glass fiber filter"
* "Sorbent"

## Body Parts

Body Parts are areas of the body that can be associated with specific clothing.

### "Whole Body Dosimeter - 1 Piece"

### "Whole Body Dosimeter - 2 Piece"

### "Whole Body Dosimeter - 3 Piece"

### "Whole Body Dosimeter - 4 Piece 2 Torso"

### "Whole Body Dosimeter - 4 Piece 2 Legs"

### "Whole Body Dosimeter - 5 Piece"

### "Whole Body Dosimeter - 6 Piece"

* "Upper body"
* "Lower body"
* "Whole body"

### "Face and neck wipes"

* "Face/Neck"

### "Head patches"

* "Head"

### "Hand Dosimeters"

* "Hands"

### "Feet Dosimeters"

* "Feet"

### "Inhalation Dosimeters"

* n/a

### "Field Fortification Dosimeters"

* n/a

## Clothing for Layers

All articles of Clothing are associated with a specific Body Part. This is an exhaustive mapping of Clothing choices for "Layers".

### "Upper body"

* "Reflective safety vest"
* "Cloth long sleeved shirt"
* "Cloth short sleeved shirt"
* "Cloth jacket"
* "CR apron"
* "CR apron worn for back protection"
* "Tyvek Jacket (with hood)"
* "Tyvek Jacket (without hood)"
* "CR Jacket (rainsuit) (without hood)"
* "CR Jacket (rainsuit) (with hood)"

### "Lower body"

* "Chaps or snake leggings"
* "Cloth pants - long"
* "Cloth pants - short"
* "Tyvek pants"
* "CR (rainsuit) pants"

### "Whole body"

* "Cloth coveralls"
* "Tyvek coveralls - without hood"
* "Tyvek coveralls - with hood"

### "Face/Neck"

* "Dust/mist mask"
* "Quarter face - mask respirator"
* "Full face - respirator"
* "Eyeglasses or sunglasses"
* "Protective eyewear"
* "Goggles"
* "Face Shield"

### "Head"

* "Hat or Cap"
* "Cloth Bandana (head scarf)"
* "Cloth Bandana (neck scarf)"
* "CR hat ('rain hat')"
* "CR hood"

### "Hands"

* "Non-CR Gloves"
* "CR Gloves"

### "Feet"

* "Shoes/boots over socks"
* "CR boots over socks"
* "CR boots over shoes/boots over socks"

### "Inhalation"

* n/a

## Clothing for PPE Layers

All articles of Clothing are associated with a specific Body Part. This is an exhaustive mapping of Clothing choices for "PPE Layers", and is a strict sub-set of Clothing for Layers.

### "Upper body"

* "Cloth long sleeved shirt"
* "Cloth short sleeved shirt"
* "Cloth jacket"
* "CR apron"
* "CR apron worn for back protection"
* "Tyvek Jacket (with hood)"
* "Tyvek Jacket (without hood)"
* "CR Jacket (rainsuit) (without hood)"
* "CR Jacket (rainsuit) (with hood)"

### "Lower body"

* "Cloth pants - long"
* "Cloth pants - short"
* "Tyvek pants"
* "CR (rainsuit) pants"

### "Whole body"

* "Cloth coveralls"
* "Tyvek coveralls - without hood"
* "Tyvek coveralls - with hood"

### "Face/Neck"

* n/a

### "Head"

* "Hat or Cap"
* "Cloth Bandana (head scarf)"
* "Cloth Bandana (neck scarf)"
* "CR hat ('rain hat')"
* "CR hood"

### "Hands"

* "Non-CR Gloves"
* "CR Gloves"

### "Feet"

* n/a

### "Inhalation"

* n/a