

Acceptance and Verification Procedure for Data stored on OPdb

GLOSSARY/LEGEND	
Word, Phrase or Acronym	Description
ACCREDITED DATA	Data from laboratories that are accredited under ISO/IEC 17025 for the measurements producing that data; ie they have been assessed by an approved accreditation body for compliance with the requirements of International Standard BS EN ISO/IEC 17025 for the measurements producing that data.
TRACEABLE DATA	For the purposes of the OPdb, data will only receive a TRACEABLE RATING if a direct link to National Standards has been demonstrated by calibration of a suitable transfer standard or reference artefact either: a) at a National Measurement Institute; or b) by a laboratory that is accredited under ISO/IEC 17025 for the relevant measurement/s
UNACCREDITED	Data for which a direct link to National Standards has not been demonstrated.
CDV	Category Data Verifier
MRD	Manufacturers, Researchers, Developers and Users – anyone who INPUTS data
NOAG	NPL OPdb Advisory Group
MAIN CATEGORY or CATEGORY	Detectors, Lamps, Materials: As Transfer Standards (MATS-ATS) Materials: Optical Radiation Interactions (MATS-ORI)
SUB CATEGORY	<i>For Detectors:</i> PHOTON/QUANTUM, THERMAL <i>For Lamps:</i> GAS DISCHARGE, INCANDESCENT, NEW/OTHER <i>For MATS-ATS:</i> REFLECTANCE, TRANSMITTANCE, FLUORESCENCE
TYPES <i>For Detectors</i>	<i>(For Detectors: PHOTON/QUANTUM)</i> PHOTOCONDUCTIVE, PHOTOVOLTAIC, PHOTOEMISSIVE <i>(For Detectors: THERMAL)</i> THERMOPILES, BOLOMETERS, PNEUMATIC, PYROELECTRIC, Other (tba by MRD)
TYPES <i>For Lamps</i>	<i>(For Lamps: GAS DISCHARGE)</i> Argon, Deuterium, FLUORESCENT, Mercury, Mercury/Xenon, METAL HALIDE, Sodium, Xenon, Other (tba by MRD) <i>(For Lamps: INCANDESCENT)</i> STANDARD, TUNGSTEN HALOGEN (HARD GLASS), QUARTZ TUNGSTEN HALOGEN, TUNGSTEN HALOGEN INFRARED (HIR), Other (tba by MRD) <i>(For Lamps:NEW/OTHER)</i> defined by MRD, this will be information collecting only.
TYPES <i>For MATS-ATS</i>	<i>(For MATS-ATS: Reflectance & Transmittance)</i> CALIBRATION, COLOUR, DIFFUSE/SCATTERING, SPECULAR, WAVELENGTH/NUMBER
MEASUREMENT INFORMATION	Accreditation Information; Measurement Type (depends on category); Measurement Details – for accredited measurements this will be limited to OPERATING CONDITIONS & MEASUREMENT GEOMETRY, for others, more details will be required, depending on category
SPECIFICATIONS (of artefact)	This should fully describe what the artefact is e.g. manufacturer’s reference number, physical dimensions and other key features – those generally found in a manufacturer’s DETAILED catalogue

1. INTRODUCTION

Manufacturers, Researchers, Developers, Suppliers and Users (MRD) are invited to submit data for consideration for inclusion in the Optical {Radiation} Properties Database (OPdb). Each 'data package' will consist of the data itself, plus background information on the artefact (specifications) and measurement/experiment details; pdf files detailing the information required are located on the HELP page and via a link at the end of the input page for each particular SUB CATEGORY.

The OPdb has been set up to collect data in four CATEGORIES and their respective sub-categories (note category 4 will not be available in V1 of the OPdb). The categories are:

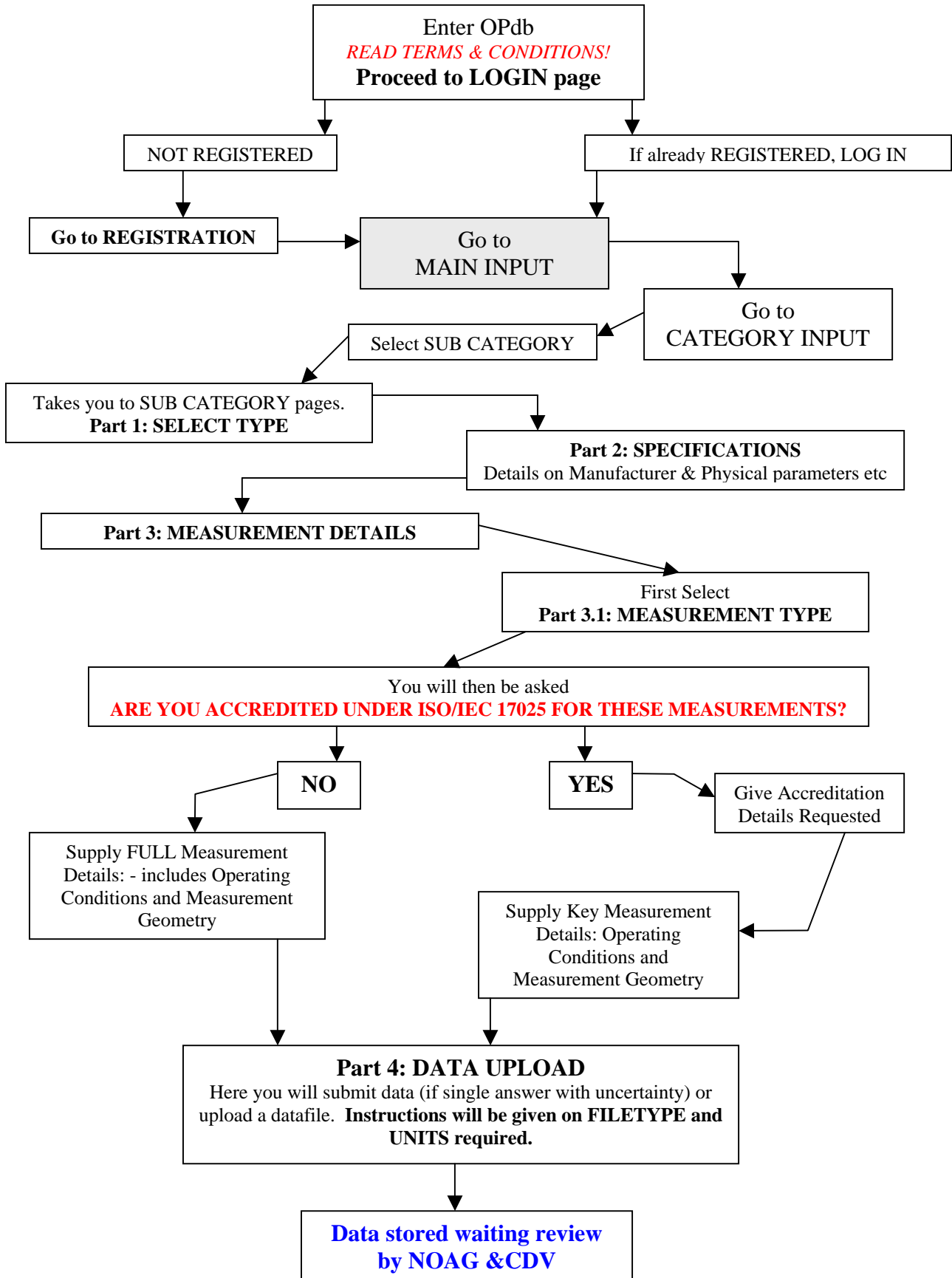
1. DETECTORS
 - 1.1. Photon/Quantum
 - 1.2. Thermal
2. LAMPS
 - 2.1. Gas
 - 2.2. Incandescent
 - 2.3. New/Other
3. MATERIALS – AS TRANSFER STANDARDS
 - 3.1. Reflectance
 - 3.2. Transmittance
 - 3.3. Fluorescence (*Not available in V1*)
4. MATERIALS – OPTICAL RADIATION INTERACTIONS (*Not available in V1*)
 - 4.1. Ageing
 - 4.2. Fluorescence
 - 4.3. Reflectance
 - 4.4. Transmittance

All data submitted will be reviewed before it is made available on the database and assigned a rating of 'accredited', 'traceable' or 'unaccredited'. The CDV will invite relevant members of the NPL OPdb Advisory Group (NOAG) to review the data and comment within a specified time period; the CDV will then RATE the data and make it public/live on the OPdb. Further details of this process and of the criteria used to determine the appropriate rating are given in section 5.

2. DETERMINING REPRESENTATIVE DATA

Data should be TYPICAL, that is, represent an average for the item type. This may be the result of measurements on many samples or a single measurement on a sample believed to be typical. MRD are encouraged to store and retain at least one sample that best fits the average properties of the submitted representative data.

3. SUBMITTING DATA – FLOW CHART



4. SUBMITTING DATA - DETAILS

4.1 REGISTRATION

MRD will be asked to supply their *contact name* (who is doing the inputting) and their MRD identifier. For an individual these may be the same, but the MRD identifier may also be the name of the Manufacturer, Research & Development Group/Institution and so on. An address for the contact is also required, together with information on the type and nature of business/research.

MRD are asked to choose one or all of the categories for which they will be inputting data. MRD will only have to register once, not per artefact. The contact email address will be the *username* and the MRD must then choose and confirm a *password*.

4.2 MAIN INPUT AND CATEGORY INPUT SCREENS

Once the MRD has registered, they can enter the input side of the database, via the MAIN INPUT screen. Wherever possible, MRD will be able to 'fill in' the required details by the use of drop-down lists. From there, they select the INPUT screen for the MAIN CATEGORY (Detectors, Lamps or Materials) of their choice.

Next they select the appropriate SUB CATEGORY. In order that MRD can be fully prepared, they will be able to download a pdf file from HELP, listing SPECIFICATION and MEASUREMENT details required; there also detailed descriptions of how the data is to be presented, that is, the required UNITS and FILETYPE.

4.3 PART 1: SUB CATEGORY TYPE

Clicking on a SUB CATEGORY takes MRD to Part 1, the SUB CATEGORY TYPE page.

The first choice the MRD must make is what TYPE their artefact conforms to within the SUB CATEGORY; they then select the relevant type and in some cases, sub type.

Once they have made their selection, they move on to Part 2.

4.4 PART 2: {ARTEFACT} SPECIFICATIONS

All MRD must now answer questions on the artefact for which they are providing typical measurement data. Wherever possible, MRD will be able to 'fill in' the required details by the use of drop-down lists.

4.5 PART 3: MEASUREMENT INFORMATION REQUIRED

4.5.1 Selecting the Measurement Type

MRD will be presented with a list of MEASUREMENT TYPES. These should be selected in the order they are presented, one after the other (of course, MRD may only have performed one measurement type on an artefact). MRD have to answer a series of questions for each measurement type they select, before moving on to the next measurement type.

4.5.2 Accreditation for the Measurement Type Selected

MRD will be asked if they are accredited under ISO/IEC 17025 for the measurement type they have selected. If they answer, YES, they will have to supply the following information:

1. Name and address of Accreditation Organisation
2. Current Certificate Number
3. Date of Issue of Certificate
4. Schedule

They will then be asked to supply minimal MEASUREMENT DETAILS, specifically, they will be asked for OPERATING CONDITIONS and MEASUREMENT GEOMETRY.

From here they will go to Part 4, submitting the data itself.

4.5.3 Measurement Details for Unaccredited MRD

MRD who are NOT Accredited under ISO/IEC 17025 for the measurement type they have selected, and for which they wish to upload data, will be asked to supply more details.

From here they will go to Part 4, submitting the data itself.

4.6 PART 4: UPLOADING THE DATA

Having completed all other sections successfully, MRD can now upload data in the agreed format (*.csv) and in the APPROPRIATE UNITS. Obviously there will be some instances (e.g. photometric measurements) where data is a single number with an associated uncertainty; there will be appropriate boxes for that information.

5. RATING THE DATA

Once the MRD have successfully uploaded a datafile in accordance with the procedures described in section 4, the datafile and related information await verification by the CATEGORY VERIFIER (CDV).

During this time, the data will not be visible to users of the database.

The following flow chart indicates the data verification checklist for the CDV.

5.1 DATA VERIFICATION CDV CHECKLIST – FLOW CHART

Note that here, any advice from NOAG is to help CDV in assigning the rating and will not be visible to MRD; the MRD will only see the final RATING.

Invite NOAG to review and comment on data (inside OPdb) within a limited time period (not more than 2 weeks).

After this time, proceed with your review, taking NOAG comments into account.

IF ISSUES CANNOT BE RESOLVED DATA WILL BE REJECTED

