

Certification and Verification Testing Overview

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EPA topics for today



- Update on numbers of products certified, certification bodies, and labs
- Issues encountered and resolutions
- Verification testing
 - Scope
 - Selection
 - Procurement
 - Timing
 - Testing and Follow-up

Products Certified through New Process



Servers	
Total Servers	25

Displays	
Total Displays	393

Imaging Equipment	
Copiers	9
Digital Duplicators	0
Fax Machines	2
Mailing Machines	0
MFDs	101
Printers	84
Scanners	97
Total Imaging	293

Computers	
Desktops/Integrated	370
Workstations	4
Thin Clients	6
Notebooks	1642
Small-Scale Servers	13
Total Computers	2035

Total number of certified products: 2,746

*all numbers as of 7/25/11

Certification Bodies



- 12 certification bodies offering certification for computers, imaging, displays, and servers.
- Wide range of pricing options available
- Advanced Compliance Solutions
- American Certification Body
- Bay Area Compliance Labs
- CSA International
- Curtis Strauss
- Intertek
- Keystone Certifications
- MET Labs
- Nemko Canada
- TUV Rheinland North America
- TUV SUD America
- UL

As of 7/25/11

Laboratories



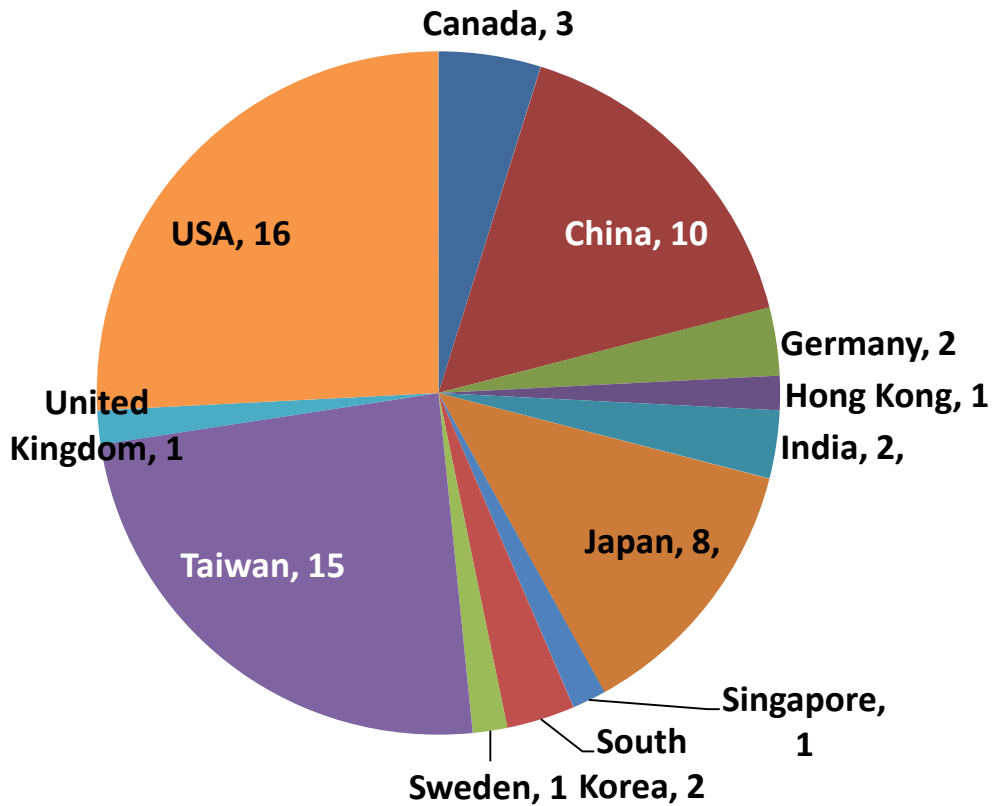
	3rd Party	1st Party	Total
Total Computers	62	22	84
Total Imaging	48	16	64
Total Displays	50	11	61
Total Servers	23	10	33
Total	71*	41*	112*

*This represents the total amount of labs that are recognized to test at least one of the four product categories in question.

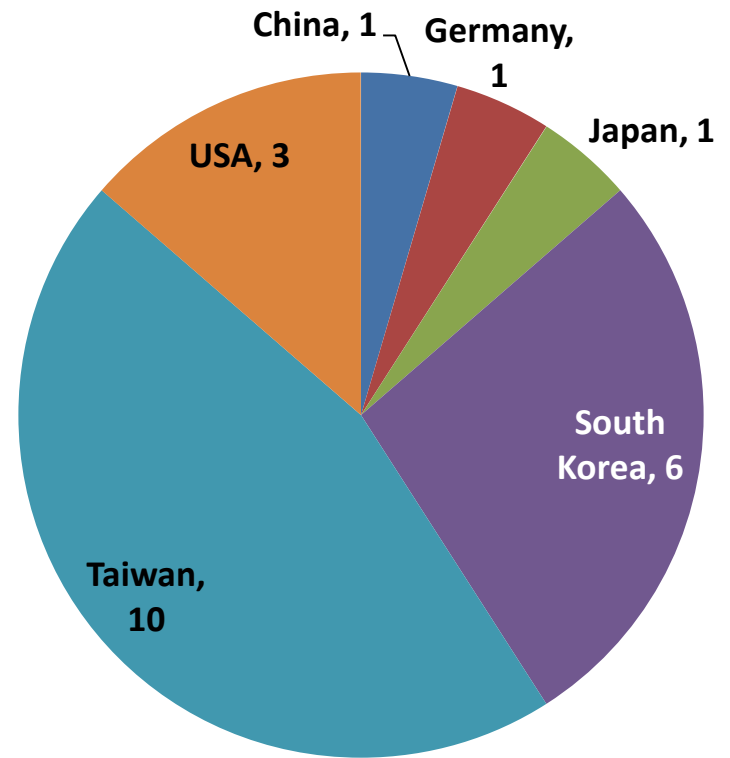
Computer Labs by Location



3rd Party



1st Party

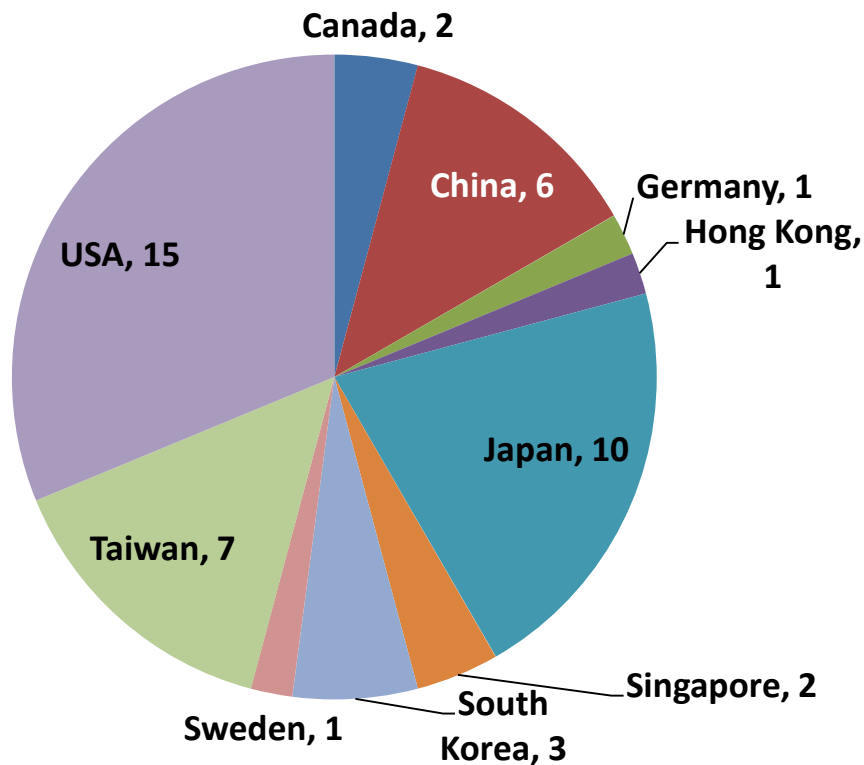


As of 7/25/11

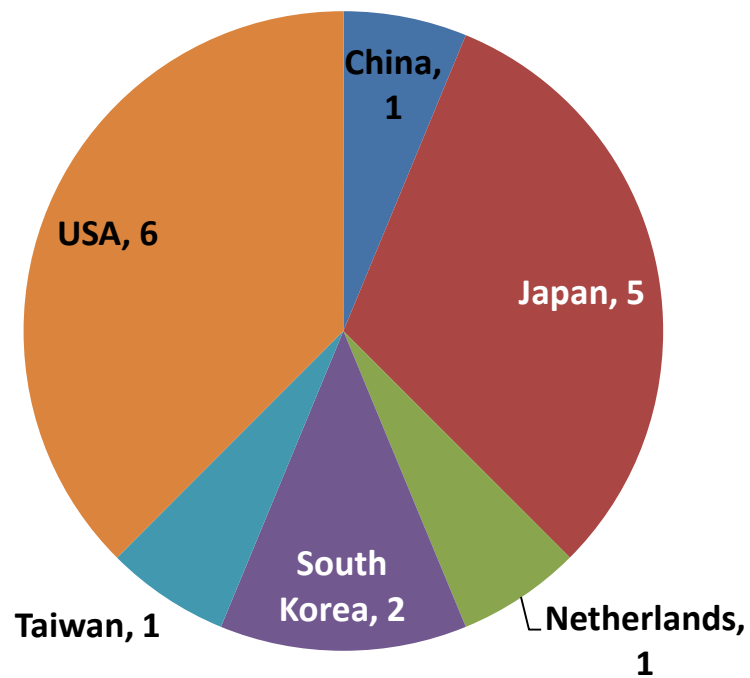
Imaging Labs by Location



3rd Party



1st Party

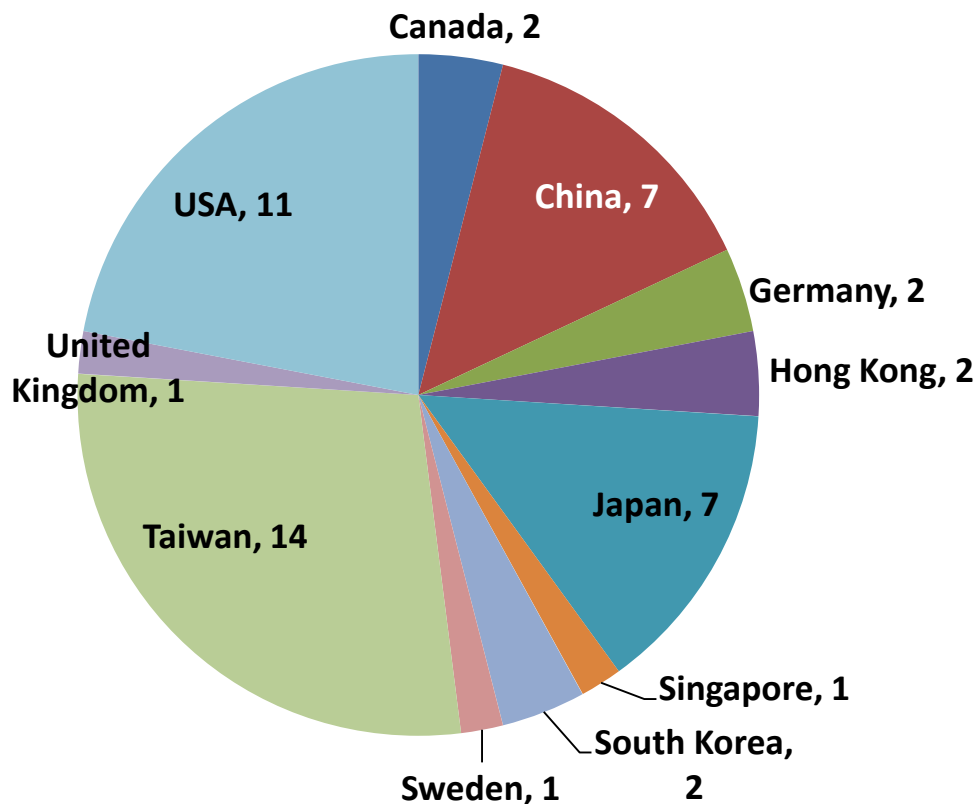


As of 7/25/11

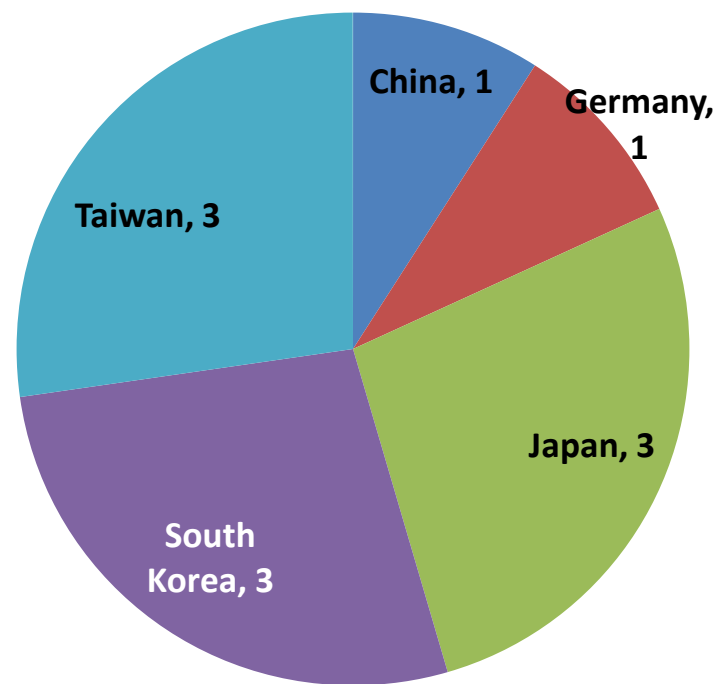
Displays Labs by Location



3rd Party



1st Party

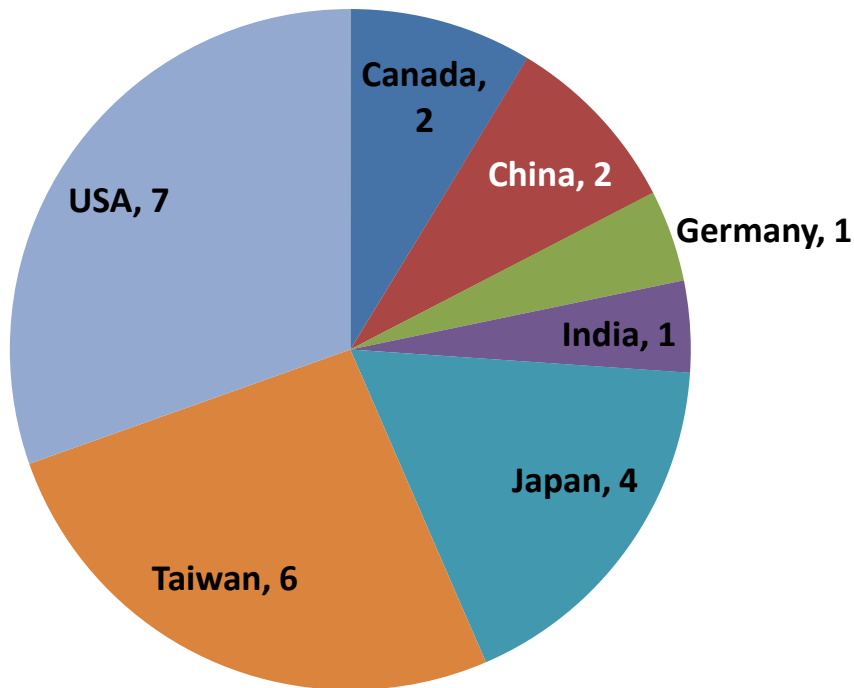


As of 7/25/11

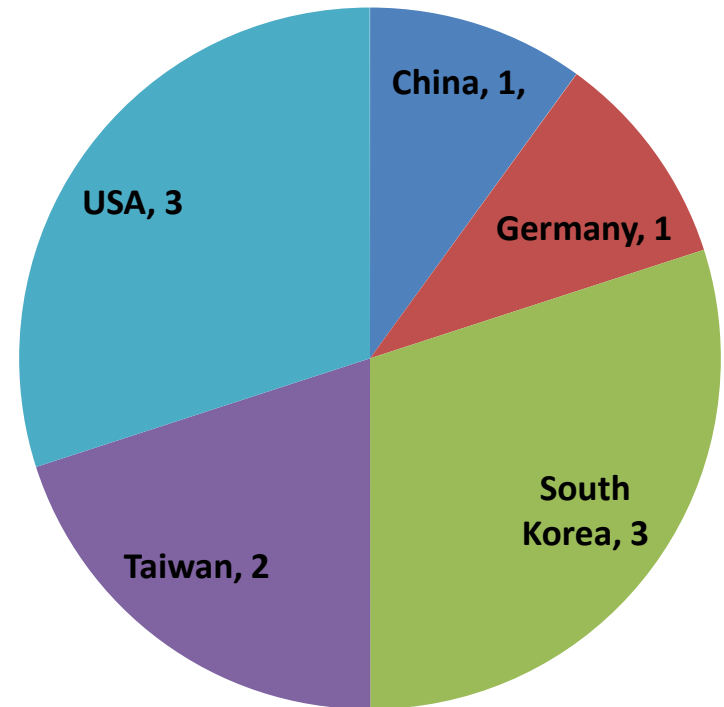
Server Labs by Location



3rd Party



1st Party



As of 7/25/11

Issues



- Confusion about measured vs. reported values
- QPL Considerations
 - Date available on market
 - Model numbers
- Data submission errors

Measured vs. Reported Values



- Measured and reported values must both meet the applicable ENERGY STAR specification for certification.
- For products not subject to Federal energy conservation standards, the reported value shall not be more efficient than the measured value. More conservative ratings are allowed.
- For products subject to Federal energy conservation standards, the reported value should be the DOE certified rating.

Model numbers and listing product families



- Addressing character limitations
 - Use of wildcards
 - Range of qualified models
 - Other options
- Listing product families in one row

Date Available on the Market



- Issue: Accurate QPLs for customers
- Short-term
 - Currently, products do not show up on ES QPL until available on market.
- Long-term
 - CBs will check off whether or not product should be on QPL based on availability in U.S. market.
- CBs should work with manufacturers to make sure this field is accurate.

Data Submission Errors



- Only include markets listed on the templates.
- Do not include hyperlinks for URLs.
- Do not include units of measure.

Current Data Submission



- Qualified Product Exchange (QPX) -Interim Solution
 - Fast, quick-fix solution for moving away from OPS
 - Excel based submissions
 - Cumbersome backend validation
 - Many manual aspects of the solution
 - Inefficient file storage
- OPS
 - Still in use for some products
 - Manual data entry by Manufacturing Partners

Future Data Submission



- QPX – Long-Term Solution
- Streamlined, automated submission process for all products
- Industry standard XML
 - Widely supported across multiple platforms
 - Database friendly to ease integration
- Easier to manage than Excel
- Upfront validation – ensures data quality

Template Format Overview



- HTML formatted version
 - Easily reviewable by non-developers
 - Includes specifications on data requirements
- XSD Schema will improve data quality
 - Character length restrictions (Min, Max, Range)
 - Data types (text, number, etc)
 - Embedded Lists within the template
- Greater consistency across ES products for CB submissions and qualified product

Verification Testing Overview

- Scope
- Selection
- Procurement
- Timing
- Testing and Follow-up

Scope



- All unique models currently on EPA's qualified products lists are eligible for verification testing.
- At a minimum, 10% of unique models in each specification must be selected and tested each year.
 - CBs should round up to the nearest integer to determine the number of models to test.
 - In the event a selected model cannot be tested, CBs should select a replacement (if possible, from the same manufacturer).

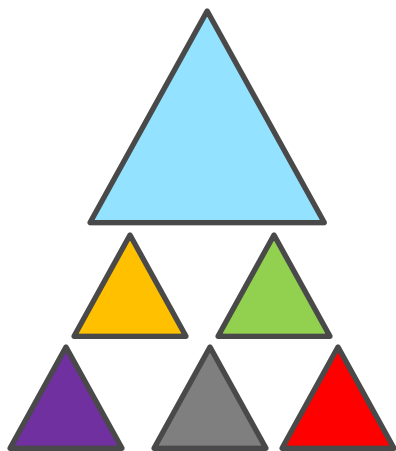
Selection



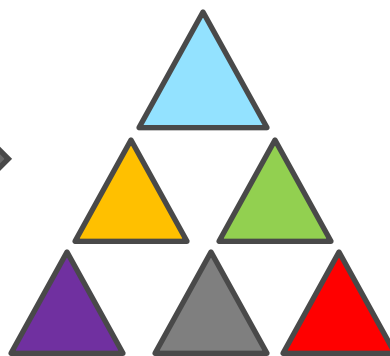
- At least 50% of models should be randomly selected.
 - This number may be higher if the CB is not able to select 50% of models based on the factors in section 3c of the CB requirements document.
- On a rolling basis, EPA will accept nominations for products to include in verification testing and will share these with CBs.

Selection: Private Labelers

- A privately labeled model (or models) and the OEM model with which it is associated count as one unique model. However, any one of the models may be selected.



1 OEM and 5 privately labeled products



All 6 are eligible for selection



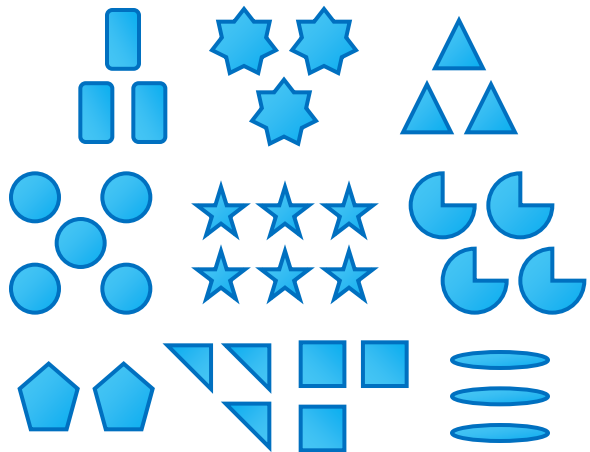
Only one can be selected and tested

Selection: Product Families

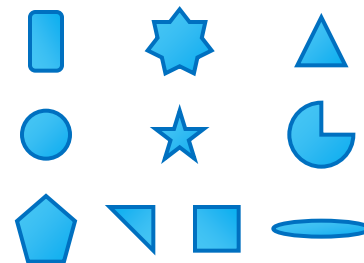
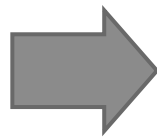


- Product families count as one model, but no more than one model per family may be selected.

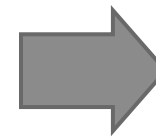
EXAMPLE:



Assume 35 certified models across ten families



No more than one model per family may be selected



10% of 10 models = minimum of 1 model to be tested

Selection/Procurement: Off-the-line Testing



- The following product categories are eligible for off-the-line testing:
 - Servers
 - Workstations
 - Imaging products with speeds greater than 50 ipm
 - Commercial food service products
 - Light Commercial HVAC
- Per CB criteria, other examples where off-the-line testing may be appropriate include products that are:
 - prohibitively expensive to purchase and/or transport,
 - made-to-order,
 - otherwise unavailable through normal retail channels.
- CBs may check with EPA if uncertain about product eligibility for off-the line testing.

Confirming Product Selection



- A model may be excused from testing if its manufacturer or private labeler can demonstrate the same unique model (private labeled product or product from the same family) was selected and tested by another CB for verification testing in the past 12 months.
- For products eligible for off-the-line testing, manufacturers should confirm how procurement may be scheduled.
- All other objections to selection should be referred to EPA within 5 business days.

Procurement: Identifying locations



- At the time of product selection, manufacturers are required to provide notification per section 4b of the CB requirements document:
 - Retail locations, including online outlets, where testing samples can be procured.
 - For lighting products, locations must be geographically diverse.
 - Provide access to the CB to select a unit(s) for testing in the case of warehouse or off-the-line procurement.
 - Products obtained off-the-shelf or from a warehouse must be in the US. (CB can check with EPA if the warehouse is near but outside the US.)

Procurement: If a product is not available in the market



- If the product is part of a product family, determine if another member of that family is available in the market and select that one.
- Otherwise: product should be removed from the qualified product list (QPL).
 - Manufacturer responsible will need to reconfirm availability of ALL of its certified products.
 - CB should select another product for testing from that manufacturer.
 - CB should consider flagging the manufacturer for testing in subsequent years if there are ongoing issues with availability of selected products.

Procurement



- CBs should try to procure testing units from retail locations identified by the manufacturers, and online outlets of those retailers.
- CBs may not procure units from otherwise unknown internet sources (i.e., “grey market” sources).
- Units will be tested against the specification in effect at the time of procurement.

Procurement: Test Sample Sizes



- Per directive 2011-04, number of units obtained for testing are based on whether one or multiple units were tested to qualify the product.
- If a product was qualified based on a single test, then verification testing will involve a single test.
- If a product was qualified based on multiple test samples, (e.g., per DOE certification sampling plan associated with Federal energy conservation standards):
 - Four units will be procured at once for verification testing.
 - A spot check will be performed on the first unit.
 - If the test result of the spot check fails by 5% or more, the additional 3 units will be tested and statistical methods applied to the results for purposes of determining a failure.

Timing



- Verification testing to a new or revised specification may not commence until the spec is effective.
- CBs will schedule their own testing cycles and selection dates.
 - A CB may select 10% at once at the beginning of the year, or 5% twice, etc.
- The percentage is pulled from the number of unique models the CB has on its list on the date of selection.
- Date of procurement should happen shortly after product selection.
- Both selection and procurement must occur when the same version of the specification is in effect.
 - This will prevent products that are no longer on the QPL from being procured.

Testing Location



- Verification testing shall be performed at an EPA-recognized, third-party laboratory; or,
- If the unit is obtained off-the-line from the manufacturing facility, the verification testing may be performed at an EPA-recognized, first-party laboratory provided that qualified CB personnel witness the test.

Determining Testing Failures



- Per directive 2011-04, testing failures are determined based on number of units tested.
- For tests conducted with one unit, unit must meet ENERGY STAR requirements.
- For tests conducted with four units, the mean will be used to determine if the model meets the ENERGY STAR requirements.



Questions?



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