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# NASA

## **Naming & Tagging Convention**

## 1. PURPOSE

This document outlines the required criteria for system/component naming and tagging of PVS within the GSFC RECERT Program.

## 2. SCOPE

The scope of this document is for system level and component level naming and tagging conventions of PVS only. All facilities that fall under the cognizance of the GSFC RECERT Program are subject to the requirements of this document. The naming scheme shall use the codes for each string as outlined in the below tables, unless explicit direction is given in this document to create new codes. Each location has the flexibility to create specific codes that are unique to their site, at the approval of the RECERT Manager, should they require it. However, all centers must adhere to the number of strings in the naming scheme as outlined below, and the purpose of each string. Also, the number of characters within each string should be followed across all centers as outlined below.

## 3. SYSTEM LEVEL NAMING CONVENTION

## 3.1 Site Location (1st String)

2 characters; will follow normal center abbreviation as determined

Code	Site Description		
GB	Goddard Space Flight Center - Greenbelt		
WF	Wallops Flight Facility		
CS	Columbia Scientific Balloon Facility		
WS	White Sands Complex		
PF	Poker Flats Research Range		
NE	Near Earth Network Systems		
OF Offsite/Other Locations			

Table 1: Facility Codes

# 3.2System Function or Purpose (2<sup>nd</sup> String)

3 characters only; to describe the overall system on a basic function level, should try to be independent of pressure, temperature, and fluid state

Table 2 contains a few examples of system functions/purposes used, but the naming convention is not limited to this list alone; engineering judgment should be used for proper allocation of systems and the need for generation of new codes



Code	Description
HAR	House Air Receivers
HPP	High Pressure Panel
LBO	Liquid Boil-Off
LPP	Low Pressure Panel
PLC	Propellant Loading Cart
PLD	Portable Liquid Dispersion
PRS	Pressure Regulated System
VAC	Vacuum Chamber

Table 2: System Function Codes

# 3.3Fluid Description (3<sup>rd</sup> String)

3 characters; can be a direct acronym of the specific gas used in that system, i.e. GN2, GHe, LN2, etc...

Alternatively, a logical code that defines the fluid category with pressure and temperature may be used for this string; a description of this code is outlined below, 1<sup>st</sup> character identifies the pressure class, 2<sup>nd</sup> character identifies the state of fluid, 3<sup>rd</sup> character identifies fluid category (fluid category to be selected in increasing order of hazard)

Pressure Class (1 <sup>st</sup> character)		Fluid State (2 <sup>nd</sup> character)		Fluid Category (3 <sup>rd</sup> character)	
Code	Description	Code	Description	Code	Description
Α	Atmospheric Pressure	А	Ambient Temperature	D	Inert
Н	>150 psig	С	Cryogenic	F	Flammable/Combustible
L	14.7 < P ≤ 150 psig	E	Elevated Temperature	М	Lethal
V	< 14.7 psig	L	Liquid		

Table 3: Fluid Description Codes

# 3.4Facility Based Sequential Counter (4th String)

3 characters (can grow in future if needed); number based on total number of systems of that specific system type; future systems of the same type will receive the next available sequential number

## 3.5Example

GB-PRS-LAD-013

Translation:

- Location (1<sup>st</sup> string) = Goddard Space Flight Center
- Function (2<sup>nd</sup> string) = Pressure Regulated System
- Fluid (3<sup>rd</sup> string) = Inert gas/liquid at ≤ 150 psig and ambient temperature

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• Counter (4<sup>th</sup> string) = It is the 13<sup>th</sup> of that kind of system at that site



## 4. COMPONENT LEVEL NAMING CONVENTION

# 4.1 Component Type (1st String)

2 characters only; to describe the function of the component; can add more codes as needed from the basic list in Table 4.

Code	Component Description	
FH	Flexible Hose	
LG	Level Gauge	
PG	Pressure Gauge	
PR	Pressure Regulator	
RD	Rupture Disk	
RV	Relief Valve	
SW	Pressure Switch	

Table 4: Component Description Codes

# 4.2 Sequential Counter (2<sup>nd</sup> String)

2 characters only; number based on total number of components of that specific type

## 4.3Example

**RV-02** 

Translation:

- Type (1<sup>st</sup> string) = Relief Valve
- Counter (2<sup>nd</sup> string) = 2<sup>nd</sup> component of that kind on that system

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## **Naming & Tagging Convention**

#### 5. SYSTEM LEVEL TAGGING

### 5.1 Front of Tag

A PVS shall be tagged with the following relevant information from Table 5. The tag should always be attached to the system in a readily visible location for interested parties to review. Each row in this tag cannot exceed 16 characters including spaces.

System Number (as per section 3)		
Code Number		
Building Number Room Number		
System MAWP Rating		
Certification Expiration Date		
Optional		

Table 5: System Tag Minimum Content

GB-PRS-LAD-013	
Code - 540	
BD - 7	RM - 142
MAWP – 150 psig	
Exp - 04/01/2022	
-	

Figure 1: Example System Tag

#### 5.2Back of Tag

An appropriate sticker that is compatible with clean room environments shall be placed on the back side of the permanent tag. The sticker shall contain the following information.

"Any modifications, alterations, or repairs <u>void</u> the certification of this system. Call (301) 286-5181 for GB Facility or (757) 824-1714 for WF Facility"

## 6. COMPONENT LEVEL TAGGING

### 6.1 Front of Tag

A certifiable component shall be tagged with the following relevant information from Table 6. The tag should always be attached to the appropriate component in a readily visible location for interested parties to review. Each row in this tag cannot exceed 16 characters including spaces.

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System Number (as per section 3)		
Component Number (as per section 4)		
Building Number	Room Number	
MAWP Rating		
Code Number		

Table 6: Component Tag Minimum Content



GB-PRS-LAD-013 RV-02 BD - 7 RM - 142 MAWP – 150 psig Code - 540

Figure 2: Example Component Tag

#### 6.2Back of Tag

An appropriate sticker that is compatible with clean room environments shall be placed on the back side of the permanent tag. The sticker shall contain the following information.

NASA / GSFC / PVS		
Greenbelt Facility	Wallops Flight Facility	
(301) 286-5181	(757) 824-1714	
Inspect Date –		

Figure 3: Back of Component Tag Sticker

Where the inspection date is based on the components In-Service Inspection schedule and is hand written with permanent ink/marker. The sticker shall be replaced after each inspection of the component to indicate the next date for inspection.

### 7. COLOR CODING OF TAGS

The permanent tags on the PVS and components shall be color coded accordingly to visually indicate current status.

Green System Tag	PVS is certified and ready for use only as is
Red System Tag	PVS is not certified and should be decommissioned or dismantled
Blue System Tag	PVS is in the process of being certified and is okay to use only as is
Purple System Tag	PVS is temporary and can be used for a duration of 90 days or less only
Black System Tag	Not a PVS and is excluded from the RECERT program; available upon request only
Silver Component Tag	Component is certified for use; used for tracking purposes for In-Service Inspection

Table 7: Tag Color Coding Definition