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U.S. Department of Commerce
National Institute of Standard and Technology

Privacy Impact Assessment
for the
Physical Measurement Laboratory Support System
System (680-01)

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☑ Concurrence of Senior Agency Official for Privacy/DOC Chief Privacy Officer
☐ Non-concurrence of Senior Agency Official for Privacy/DOC Chief Privacy Officer

for Dr. Catrina D. Purvis 09/30/2019

Signature of Senior Agency Official for Privacy/DOC Chief Privacy Officer Date

U.S. Department of Commerce Privacy Impact Assessment
National Institute of Standards and Technology/
Center for Nanoscale Science and Technology

Unique Project Identifier: 680-01

Introduction: System Description

Provide a description of the system that addresses the following elements:
The response must be written in plain language and be as comprehensive as necessary to describe the system.

(a) Whether it is a general support system, major application, or other type of system
The NIST Physical Measurement Laboratory (PML) operates a National, shared-use facility for nanoscale fabrication and measurement, and develops innovative nanoscale measurement and fabrication capabilities to support researchers from industry, academia, NIST, and other government agencies in nanoscale technology from discovery to production. The PML System supports administration and management of the NanoFab facility and equipment access through the following:

- Application to use the facility requires submission of a Project. The forms are available for public download, and are required to be mailed, faxed, or emailed.
- The NanoFab Billing System (NBS) provides centralized accounting, fund and tool usage fee management for the NanoFab facility.
- The PML physical access control system enables access controls on the internal access points within the building, limiting access to the NanoFab. In addition, a camera monitoring system enables remote monitoring of the NanoFab to support detection of unauthorized access.

(b) System location
The system is located at the NIST Gaithersburg, Maryland, facility, within the continental United States.

(c) Whether it is a standalone system or interconnects with other systems (identifying and describing any other systems to which it interconnects)
The Physical Measurement Laboratory (PML) System is a standalone system.

(d) The way the system operates to achieve the purpose(s) identified in Section 4
Following submission of a project application, if accepted, time is scheduled for use of the NanoFab facility, and payment made to NIST for hours utilized.

(e) How information in the system is retrieved by the user
Users are able to request information by contacting the NanoFab User Office or NanoFab Manager.

(f) How information is transmitted to and from the system
Information is transmitted over the NIST internal network.

(g) Any information sharing conducted by the system
The components will share information with other internal NIST business units.

(h) The specific programmatic authorities (statutes or Executive Orders) for collecting, maintaining, using, and disseminating the information
The National Institute of Standards and Technology Act, as amended, 15 U.S.C. 271 et seq. (which includes Title 15 U.S.C. 272) and section 12 of the Stevenson-Wydler Technology Innovation Act of 1980, as amended, 15 U.S.C. 3710a.

5 U.S.C. App.—Inspector General Act of 1978, § 2; 5 U.S.C. App.—Reorganization Plan of 1970, § 2; 13 U.S.C. § 2; 13 U.S.C. § 131; 15 U.S.C. § 272; 15 U.S.C. § 1151; 15 U.S.C. § 1501; 15 U.S.C. § 1512; 15 U.S.C. § 1516; 15 U.S.C. § 3704b; 16 U.S.C. § 1431; 35 U.S.C. § 2; 42 U.S.C. § 3121 et seq.; 47 U.S.C. § 902; 50 U.S.C. App. § 2401 et seq.; E.O. 11625; 77 FR 49699 (Aug. 16, 1012).

(i) The Federal Information Processing Standards (FIPS) 199 security impact category for the system is Moderate.

Section 1: Status of the Information System

1.1 Indicate whether the information system is a new or existing system.

_____ This is a new information system.
__X__ This is an existing information system with changes that create new privacy risks. *(Check all that apply.)*

Changes That Create New Privacy Risks (CTCNPR)					
a. Conversions		d. Significant Merging		g. New Interagency Uses	
b. Anonymous to Non-Anonymous		e. New Public Access		h. Internal Flow or Collection	
c. Significant System Management Changes	X	f. Commercial Sources		i. Alteration in Character of Data	
j. Other changes that create new privacy risks (specify):					

____ This is an existing information system in which changes do not create new privacy risks, and there is not a SAOP approved Privacy Impact Assessment.

____ This is an existing information system in which changes do not create new privacy risks, and there is a SAOP approved Privacy Impact Assessment.

Section 2: Information in the System

2.1 Indicate what personally identifiable information (PII)/business identifiable information (BII) is collected, maintained, or disseminated. *(Check all that apply.)*

Identifying Numbers (IN)					
a. Social Security*		e. File/Case ID		i. Credit Card	
b. Taxpayer ID		f. Driver's License		j. Financial Account	
c. Employer ID		g. Passport		k. Financial Transaction	
d. Employee ID		h. Alien Registration		l. Vehicle Identifier	
m. Other identifying numbers (specify):					
*Explanation for the need to collect, maintain, or disseminate the Social Security number, including truncated form:					

General Personal Data (GPD)					
a. Name	X	g. Date of Birth		m. Religion	
b. Maiden Name		h. Place of Birth		n. Financial Information	
c. Alias		i. Home Address		o. Medical Information	
d. Gender		j. Telephone Number		p. Military Service	
e. Age		k. Email Address		q. Physical Characteristics	
f. Race/Ethnicity		l. Education		r. Mother's Maiden Name	
s. Other general personal data (specify):					

Work-Related Data (WRD)					
a. Occupation		d. Telephone Number	X	g. Salary	
b. Job Title		e. Email Address	X	h. Work History	
c. Work Address	X	f. Business Associates	X		
i. Other work-related data (specify): Business proprietary information					

Distinguishing Features/Biometrics (DFB)					
a. Fingerprints		d. Photographs		g. DNA Profiles	
b. Palm Prints		e. Scars, Marks, Tattoos		h. Retina/Iris Scans	
c. Voice Recording/Signatures		f. Vascular Scan		i. Dental Profile	
j. Other distinguishing features/biometrics (specify):					

System Administration/Audit Data (SAAD)					
a. User ID	X	c. Date/Time of Access	X	e. ID Files Accessed	
b. IP Address	X	d. Queries Run		f. Contents of Files	
g. Other system administration/audit data (specify):					

Other Information (specify)

2.2 Indicate sources of the PII/BII in the system. *(Check all that apply.)*

Directly from Individual about Whom the Information Pertains					
In Person		Hard Copy: Mail/Fax	X*	Online	
Telephone		Email	X*		
Other (specify): *Public downloadable PDF					

Government Sources					
Within the Bureau		Other DOC Bureaus		Other Federal Agencies	
State, Local, Tribal		Foreign			
Other (specify):					

Non-government Sources					
Public Organizations		Private Sector		Commercial Data Brokers	
Third Party Website or Application					
Other (specify):					

2.3 Describe how the accuracy of the information in the system is ensured.

The integrity of information is ensured by the individual submitting information (e.g., on forms).

2.4 Is the information covered by the Paperwork Reduction Act?

	Yes, the information is covered by the Paperwork Reduction Act. Provide the OMB control number and the agency number for the collection.
X	No, the information is not covered by the Paperwork Reduction Act.

2.5 Indicate the technologies used that contain PII/BII in ways that have not been previously deployed. *(Check all that apply.)*

Technologies Used Containing PII/BII Not Previously Deployed (TUCPBNPD)			
Smart Cards		Biometrics	
Caller-ID		Personal Identity Verification (PIV) Cards	
Other (specify):			

X	There are not any technologies used that contain PII/BII in ways that have not been previously deployed.

Section 3: System Supported Activities

3.1 Indicate IT system supported activities which raise privacy risks/concerns. *(Check all that*

apply.)

Activities			
Audio recordings		Building entry readers	
Video surveillance	X	Electronic purchase transactions	
Other (specify):			

	There are not any IT system supported activities which raise privacy risks/concerns.

Section 4: Purpose of the System

4.1 Indicate why the PII/BII in the IT system is being collected, maintained, or disseminated. *(Check all that apply.)*

Purpose			
For a Computer Matching Program		For administering human resources programs	
For administrative matters	X	To promote information sharing initiatives	
For litigation		For criminal law enforcement activities	
For civil enforcement activities		For intelligence activities	
To improve Federal services online		For employee or customer satisfaction	
For web measurement and customization technologies (single-session)		For web measurement and customization technologies (multi-session)	
Other (specify):			

Section 5: Use of the Information

5.1 In the context of functional areas (business processes, missions, operations, etc.) supported by the IT system, describe how the PII/BII that is collected, maintained, or disseminated will be used. Indicate if the PII/BII identified in Section 2.1 of this document is in reference to a federal employee/contractor, member of the public, foreign national, visitor or other (specify).

Following submission of a project application, time is scheduled for use of the NanoFab facility, and payment made to NIST for hours utilized. Information is collected for federal/employee/contractors, Associates (foreign or domestic), or members of the public.

5.2 Describe any potential threats to privacy as a result of the bureau's/operating unit's use of the information, and controls that the bureau/operating unit has put into place to ensure that the information is handled, retained, and disposed appropriately. (For example: mandatory training for system users regarding appropriate handling of information, automatic purging of information in accordance with the retention schedule, etc.)

Potential threats to privacy include the insider threat (e.g., authorized users misusing data or authorized user inadvertently combining multiple data sets resulting in aggregation of personal data). Mitigating controls include employing and monitoring administrative access, training for administrators, and assurance of compliance to records management schedules.

Section 6: Information Sharing and Access

6.1 Indicate with whom the bureau intends to share the PII/BII in the IT system and how the PII/BII will be shared. *(Check all that apply.)*

Recipient	How Information will be Shared		
	Case-by-Case	Bulk Transfer	Direct Access
Within the bureau	X		
DOC bureaus			
Federal agencies			
State, local, tribal gov't agencies			
Public			
Private sector			
Foreign governments			
Foreign entities			
Other (specify):			

	The PII/BII in the system will not be shared.

6.2 Indicate whether the IT system connects with or receives information from any other IT systems authorized to process PII and/or BII.

	Yes, this IT system connects with or receives information from another IT system(s) authorized to process PII and/or BII. Provide the name of the IT system and describe the technical controls which prevent PII/BII leakage:
X	No, this IT system does not connect with or receive information from another IT system(s) authorized to process PII and/or BII.

6.3 Identify the class of users who will have access to the IT system and the PII/BII. *(Check all that apply.)*

Class of Users			
General Public	X*	Government Employees	X
Contractors	X**		
Other (specify): *General public class of users is limited to those with a submitted and approved project. **Contractors class of users includes NIST Associates (foreign or domestic)			

Section 7: Notice and Consent

7.1 Indicate whether individuals will be notified if their PII/BII is collected, maintained, or disseminated by the system. *(Check all that apply.)*

	Yes, notice is provided pursuant to a system of records notice published in the Federal Register and discussed in Section 9.	
	Yes, notice is provided by a Privacy Act statement and/or privacy policy. The Privacy Act statement and/or privacy policy can be found at: _____.	
X	Yes, notice is provided by other means.	Specify how: Notice is provided on the forms required for submission.
	No, notice is not provided.	Specify why not: Not applicable.

7.2 Indicate whether and how individuals have an opportunity to decline to provide PII/BII.

X	Yes, individuals have an opportunity to decline to provide PII/BII.	Specify how: Individuals have opportunity to decline to provide PII/BII and not submit the requisite documentation. However, doing so would prohibit use of the facility, instrumentation, and related resources.
	No, individuals do not have an opportunity to decline to provide PII/BII.	Specify why not: Not applicable

7.3 Indicate whether and how individuals have an opportunity to consent to particular uses of their PII/BII.

X	Yes, individuals have an opportunity to consent to particular uses of their PII/BII.	Specify how: Individuals have opportunity to consent to particular uses of their PII/BII when submitting documentation.
	No, individuals do not have an opportunity to consent to particular uses of their PII/BII.	Specify why not: Not applicable

7.4 Indicate whether and how individuals have an opportunity to review/update PII/BII pertaining to them.

X	Yes, individuals have an opportunity to review/update PII/BII pertaining to them.	Specify how: Individuals have opportunity to review/update PII/BII pertaining to them when submitting documentation.
	No, individuals do not have an opportunity to review/update PII/BII pertaining to them.	Specify why not: Not applicable

Section 8: Administrative and Technological Controls

8.1 Indicate the administrative and technological controls for the system. *(Check all that apply.)*

	All users signed a confidentiality agreement or non-disclosure agreement.

	All users are subject to a Code of Conduct that includes the requirement for confidentiality.
X	Staff (employees and contractors) received training on privacy and confidentiality policies and practices.
X	Access to the PII/BII is restricted to authorized personnel only.
X	Access to the PII/BII is being monitored, tracked, or recorded. Explanation: Access is restricted only for employees and contractors with a "need to know" and is tracked and recorded through system logs.
X	The information is secured in accordance with FISMA requirements. Provide date of most recent Assessment and Authorization (A&A): April 1, 2019 ☐ This is a new system. The A&A date will be provided when the A&A package is approved.
X	The Federal Information Processing Standard (FIPS) 199 security impact category for this system is a moderate or higher.
X	NIST Special Publication (SP) 800-122 and NIST SP 800-53 Revision 4 Appendix J recommended security controls for protecting PII/BII are in place and functioning as intended; or have an approved Plan of Action and Milestones (POA&M).
X	A security assessment report has been reviewed for the supporting information system and it has been determined that there are no additional privacy risks.
	Contractors that have access to the system are subject to information security provisions in their contracts required by DOC policy.
	Contracts with customers establish ownership rights over data including PII/BII.
	Acceptance of liability for exposure of PII/BII is clearly defined in agreements with customers.
	Other (specify):

8.2 Provide a general description of the technologies used to protect PII/BII on the IT system. *(Include data encryption in transit and/or at rest, if applicable).*

The components of the system are accessible on internal NIST networks protected by multiple firewalls. Unauthorized use of the system is restricted by user authentication. Access logs are kept and reviewed for anomalies on an as needed basis. Data is stored on servers located at the NIST Gaithersburg, Maryland, facility within the continental United States. Financial data is transmitted securely on internal networks.

Section 9: Privacy Act

9.1 Indicate whether a system of records is being created under the Privacy Act, 5 U.S.C. § 552a. *(A new system of records notice (SORN) is required if the system is not covered by an existing SORN).*

As per the Privacy Act of 1974, "the term 'system of records' means a group of any records under the control of any agency from which information is retrieved by the name of the individual or by some identifying number, symbol, or other identifying particular assigned to the individual."

	Yes, this system is covered by an existing system of records notice (SORN). Provide the SORN name, number, and link. *(list all that apply)*:
	Yes, a SORN has been submitted to the Department for approval on (date).

X	No, this system is not a system of records and a SORN is not applicable.

Section 10: Retention of Information

10.1 Indicate whether these records are covered by an approved records control schedule and monitored for compliance. *(Check all that apply.)*

X	There is an approved record control schedule. Provide the name of the record control schedule: GRS 1.1 Financial Management and Reporting GRS 6.3 Information Technology Records
	No, there is not an approved record control schedule. Provide the stage in which the project is in developing and submitting a records control schedule:
X	Yes, retention is monitored for compliance to the schedule.
	No, retention is not monitored for compliance to the schedule. Provide explanation:

10.2 Indicate the disposal method of the PII/BII. *(Check all that apply.)*

Disposal			
Shredding	X	Overwriting	X
Degaussing		Deleting	X
Other (specify):			

Section 11: NIST Special Publication 800-122 PII Confidentiality Impact Level

11.1 Indicate the potential impact that could result to the subject individuals and/or the organization if PII were inappropriately accessed, used, or disclosed. *(The PII Confidentiality Impact Level is not the same as the Federal Information Processing Standards (FIPS) 199 security impact category.)*

X	Low – the loss of confidentiality, integrity, or availability could be expected to have a limited adverse effect on organizational operations, organizational assets, or individuals.
	Moderate – the loss of confidentiality, integrity, or availability could be expected to have a serious adverse effect on organizational operations, organizational assets, or individuals.
	High – the loss of confidentiality, integrity, or availability could be expected to have a severe or catastrophic adverse effect on organizational operations, organizational assets, or individuals.

11.2 Indicate which factors were used to determine the above PII confidentiality impact levels. *(Check all that apply.)*

	Identifiability	Provide explanation:

	Quantity of PII	Provide explanation:
	Data Field Sensitivity	Provide explanation:
X	Context of Use	Provide explanation: Project data research results are intended for publication.
X	Obligation to Protect Confidentiality	Provide explanation: PML reputation would be affected if it failed to project non-public data.
	Access to and Location of PII	Provide explanation:
	Other:	Provide explanation:

Section 12: Analysis

12.1 Identify and evaluate any potential threats to privacy that exist in light of the information collected or the sources from which the information is collected. Also, describe the choices that the bureau/operating unit made with regard to the type or quantity of information collected and the sources providing the information in order to prevent or mitigate threats to privacy. (For example: If a decision was made to collect less data, include a discussion of this decision; if it is necessary to obtain information from sources other than the individual, explain why.)

Potential threats to privacy include the insider threat (e.g., authorized users misusing data or authorized user inadvertently combining multiple data sets resulting in aggregation of personal data).

Mitigating controls include employing and monitoring administrative access, training for administrators, and assurance of compliance to records management schedules.

12.2 Indicate whether the conduct of this PIA results in any required business process changes.

	Yes, the conduct of this PIA results in required business process changes. Explanation:
X	No, the conduct of this PIA does not result in any required business process changes.

12.3 Indicate whether the conduct of this PIA results in any required technology changes.

	Yes, the conduct of this PIA results in required technology changes. Explanation:
X	No, the conduct of this PIA does not result in any required technology changes.