

# LA-UR-22-27366

Approved for public release; distribution is unlimited.

**Title:** Los Alamos National Laboratory (AI 856) NSR Permit 2195B-M3,  
Administrative Revision for Identical Turbine Engine Replacement

**Author(s):** Mahoney, Katelyn Rose

**Intended for:** Environmental Regulatory Document  
**Issued:** 2022-11-09 (rev.1)



Los Alamos National Laboratory, an affirmative action/equal opportunity employer, is operated by Triad National Security, LLC for the National Nuclear Security Administration of U.S. Department of Energy under contract 89233218CNA000001. By approving this article, the publisher recognizes that the U.S. Government retains nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or to allow others to do so, for U.S. Government purposes. Los Alamos National Laboratory requests that the publisher identify this article as work performed under the auspices of the U.S. Department of Energy. Los Alamos National Laboratory strongly supports academic freedom and a researcher's right to publish; as an institution, however, the Laboratory does not endorse the viewpoint of a publication or guarantee its technical correctness.



Los Alamos National Laboratory  
PO Box 1663, K490  
Los Alamos, NM 87545  
505-667-0666

**Environmental Protection & Compliance Division  
Compliance Programs Group**

**Symbol:** EPC-DO: 22-203  
**LAUR:** 22-27366  
**Locates:** N/A  
**Date:** 27 July 2022

Kirby Sue Olson, Ph.D, Major Sources Permitting Program Manager  
Air Quality Bureau  
New Mexico Environment Department  
525 Camino de los Marquez, Suite 1  
Santa Fe, NM 87505

**Subject: Los Alamos National Laboratory (AI 856) NSR Permit 2195B-M3,  
Administrative Revision for Identical Turbine Engine Replacement**

Dear Dr. Olson:

The Laboratory is submitting this administrative revision to NSR Permit 2195B-M3 to replace the existing TA-3 combustion turbine engine (Unit No. TA-3-22-CT-1) with an identical engine. The replacement engine will operate while Unit TA-3-22-CT-1 is removed for repairs, when Unit TA-3-22-CT-1 is returned to the facility, the replacement engine will be removed and the repaired engine will be reinstalled.

The replacement engine is an identical engine to Unit TA-3-22-CT-1, however the model number and pollution control equipment number do not match the existing engine. According to Siemens, the property numbers for existing equipment used legacy Rolls-Royce nomenclature, and when Siemens took ownership of the company the equipment numbers changed nomenclature. However, Siemens confirms that the leased replacement engine is the same model and configuration as the existing unit.

This replacement of an identical turbine engine meets the requirements of AQB procedure number 02.007-00, Replacement of Identical IC Engines and Turbines. Even though the model number and control equipment do not match, the manufacturer has verified that the equipment is exactly the same in other respects, per 6.0B of the procedure.

Sincerely,

Steven L. Story  
Group Leader

Attachment(s): Attachment 1 Permitting Administrative Multi-Form for 2-A(i) Identical Engine or Turbine Replacements

Copy: Paul Newman, Siemens, [paul.newman@siemens-energy.com](mailto:paul.newman@siemens-energy.com)  
Mark Gleva, Siemens, [mark.leva@siemensgovt.com](mailto:mark.leva@siemensgovt.com)  
Brian Rhodes, NA-LA, [brian.rhodes@nnsa.doe.gov](mailto:brian.rhodes@nnsa.doe.gov)  
Adrienne L. Nash, NA-LA, [adrienne.nash@nnsa.doe.gov](mailto:adrienne.nash@nnsa.doe.gov)  
Silas DeRoma, NA-LA, [silas.deroma@nnsa.doe.gov](mailto:silas.deroma@nnsa.doe.gov)  
Stephen Jochem, NA-LA, [stephen.jochem@nnsa.doe.gov](mailto:stephen.jochem@nnsa.doe.gov)  
Glenn J. McMaken, NA-LA, [glenn.mcmaken@nnsa.doe.gov](mailto:glenn.mcmaken@nnsa.doe.gov)  
Maxine M. McReynolds, GC-ESH, Triad, [mcreynolds@lanl.gov](mailto:mcreynolds@lanl.gov)  
Andrew W. Erickson, UI-DO, Triad, [erickson@lanl.gov](mailto:erickson@lanl.gov)  
Lawrence V. Chavez, UI-DO, Triad, [lvchavez@lanl.gov](mailto:lvchavez@lanl.gov)  
Phillip E. Ulibarri, UI-OPS, Triad, [phillip@lanl.gov](mailto:phillip@lanl.gov)  
Robert M. Ortiz, UI-OPS, Triad, [robo@lanl.gov](mailto:robo@lanl.gov)  
Nicholas E. Nelson, UI-OPS, Triad, [nelson\\_n@lanl.gov](mailto:nelson_n@lanl.gov)  
William B. Newell Jr., ES-UI, Triad, [wnewell@lanl.gov](mailto:wnewell@lanl.gov)  
Grant L. Stewart, UI-OSI, Triad, [gstewart@lanl.gov](mailto:gstewart@lanl.gov)  
J. Cris Gomez, LOG-CS, Triad, [cgomez@lanl.gov](mailto:cgomez@lanl.gov)  
William R. Mairson, ALDESHQSS, Triad, [wrmairson@lanl.gov](mailto:wrmairson@lanl.gov)  
Jim Coy, ALDESHQSS, Triad, [jcoy@lanl.gov](mailto:jcoy@lanl.gov)  
Jeannette T. Hyatt, EWP, Triad, [jhyatt@lanl.gov](mailto:jhyatt@lanl.gov)  
Jennifer E. Payne, EPC-DO, Triad, [jpayne@lanl.gov](mailto:jpayne@lanl.gov)  
Kristen Honig, EPC-DO, Triad, [khonig@lanl.gov](mailto:khonig@lanl.gov)  
Marjorie B. Stockton, EPC-CP, Triad, [mstockton@lanl.gov](mailto:mstockton@lanl.gov)  
Katelyn Mahoney, EPC-CP, Triad, [kmahoney@lanl.gov](mailto:kmahoney@lanl.gov)  
Taylor A. Valdez, PCM-DO, Triad, [tvaldez@lanl.gov](mailto:tvaldez@lanl.gov)  
Triad, EPC-CP Title V Permit File  
Triad, EPC-CP Correspondence File  
[lasomailbox@nnsa.doe.gov](mailto:lasomailbox@nnsa.doe.gov)  
[epc-correspondence@lanl.gov](mailto:epc-correspondence@lanl.gov)  
[eshqss-dcrm@lanl.gov](mailto:eshqss-dcrm@lanl.gov)  
[gc-esh@lanl.gov](mailto:gc-esh@lanl.gov)  
[interface@lanl.gov](mailto:interface@lanl.gov)

# **ATTACHMENT 1**

## **Permitting Administrative Multi-Form for 2- A(i) Identical Engine or Turbine Replacements**

EPC-DO: 22-203

LA-UR-22-27366

Date:           **JUL 27 2022**

## Permitting Administrative Multi-Form

Use for NSR administrative permit revisions (including GCPs), TV administrative amendments, TV responsible official notifications, and other submittals required by a permit condition. Refer to Section 4 for instructions, acronyms, and mailing addresses.

<b>For Department use only:</b>		<b>For Department use only:</b>
Reviewed by:		Received Date
Permit revision number:		
Date:		
<input type="checkbox"/> Approved <input type="checkbox"/> Completed <input type="checkbox"/> Denied		

### Section 1: General Information – Required for All Submittals

1	Facility Name: U.S. Department of Energy (DOE)/Los Alamos National Laboratory		
2	Preparer/Consultant Name: Katelyn R. Mahoney	Title: Environmental Professional	
3	Email: kmahoney@lanl.gov	Phone: 505-396-0619	
4	Address: P.O. Box 1663, MS J978, Los Alamos, NM, 87545		
5	Air Permit Contact: Marjorie B. Stockton	Title: Meteorology & Air Quality Team Leader	
6	Email: mstockton@lanl.gov	Phone: 505-665-3289	
7	Address: P.O. Box 1663, MS J978, Los Alamos, NM, 87545		
8	Check all boxes below for which this submittal applies:	AI #: 856	Permit #: 2195B-M3
	<input checked="" type="checkbox"/> NSR Construction Permit (20.2.72 NMAC) <input type="checkbox"/> TV Operating Permit (20.2.70 NMAC)	<input type="checkbox"/> NOI (20.2.73 NMAC) (Sections 2-B, 2-D) <input type="checkbox"/> Notice of Exemption (20.2.72.202.B NMAC) (Section 2-F)	<input type="checkbox"/> PSD Permit (20.2.74 NMAC) <input type="checkbox"/> Nonattainment Permit (20.2.79 NMAC)

### Section 2: Details of Submittal

**Only print and submit the pages necessary for your submittal.** Print double sided head-to-toe, flip on short end (tablet). The Permit Section responds to all TV Administrative amendments and responds only to denials of NSR administrative revisions. Courier proof of delivery is required if you want confirmation that the Department received this submittal. Check the box(es) applicable to this submittal:

- |  |   |
|--|---|
| <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> <a href="#">2-A(i) &amp; 2-A(ii): Identical Engine or Turbine Replacements</a></li> <li><input type="checkbox"/> <a href="#">2-B: Owner, Operator, and Name Changes to NOIs or Construction Permits</a></li> <li><input type="checkbox"/> <a href="#">2-C: Ownership or Operational Control Changes for Title V Permits</a></li> <li><input type="checkbox"/> <a href="#">2-D: Closing a Facility or Removing Units from a Permit or Canceling an NOI</a></li> <li><input type="checkbox"/> <a href="#">2-E: Correct Typographical Error</a></li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> <a href="#">2-F: Reporting Exempt Equipment for Minor Construction Permits or for No Permit Required (NPR) Facilities</a></li> <li><input type="checkbox"/> <a href="#">2-G: Add Minor NSR Exempt Equipment to Construction Permits for PSD or Nonattainment Sources</a></li> <li><input type="checkbox"/> <a href="#">2-H: Title V Responsible Official Designations</a></li> <li><input type="checkbox"/> <a href="#">2-I: Submittals to the Permit Programs Manager</a></li> </ul> |
|--|---|
- [Section 3: Certification – Required for All Changes](#)  
[Section 4: Form Instructions](#)

**Section 2-A(i): Administrative Revision for Identical Engine or Turbine Replacements**

(Administrative Revision)

Identical engine or turbine replacements are only authorized by a 20.2.72.219.A NMAC administrative permit revision if the replacement meets the requirements of Air Quality Bureau Procedure 02-007.00 *Replacement of Identical IC Engines and Turbines*, available at [www.env.nm.gov/air-quality/permitting-section-procedures-and-guidance/](http://www.env.nm.gov/air-quality/permitting-section-procedures-and-guidance/). Procedure 02-007.00 only applies to 20.2.72 NMAC actions, so, for TV, do not check the box for TV Operating Permit, Section 1, number 8, of this form.

Provide complete information in the table. If multiple units are being replaced, provide a completed table for each unit, and include a separate table if a compressor is being replaced.

All applicants claiming identical engine or turbine replacements fill out Section 2-A(i) (this page). PSD or Nonattainment major sources must also fill out both Section 2-A(i) and 2-A(ii) (next two pages).

Equipment Information	Existing Equipment or Component	New Equipment or Component
Unit Number in permit	TA-3-22-CT-1	
Manufacturer Model Number	Rolls Royce RB211-6761DLE	SGT A35-DLE-GT
Manufacture Date	2003	2003
Serial Number	2011	1890D-2015
Skid Pad Number	N/A	N/A
Maximum Rated Capacity	32 MW	32 MW
Permitted Capacity	27 MW	27 MW
Pollution Control Used	Rolls-Royce DLE System NOx Control	Siemens A35 DLE NOx Control
List all applicable NSPS & Construction Date (Subpart of 40 CFR 60)	40 CFR 60, Subpart A, General Provisions 40 CFR 60, Subpart GG, Stationary Gas Turbines Construction Date - 2005	40 CFR 60, Subpart A, General Provisions 40 CFR 60, Subpart GG, Stationary Gas Turbines Construction Date – 8/2022
List all applicable MACT & Construction Date (Subpart of 40 CFR 63)	None	None
<b>Permit Type</b>		
1. Is the facility an existing PSD Major Source subject to 20.2.74 NMAC?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Is the facility an existing Nonattainment Major Source subject to 20.2.79 NMAC?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

If the answer to questions 1 and 2 are both “no”, completing the next page is not required. If yes to either question 1 or 2, completing Section 2(A)(ii) is required.



**Section 3: Certification – Required for All Submittals**

Company Name: Triad National Security, LLC

I, Steven L. Story, hereby certify that the information and data submitted in this application are true and as accurate as possible, to the best of my knowledge and professional expertise and experience.

Signed this 27 day of July, 2022, upon my oath or affirmation, before a notary of the State of New Mexico.

SL Story 7/27/22  
Signature<sup>1</sup> Date

Steven L. Story EPC-CP Group Leader  
Printed Name Title

Scribed and sworn before me on this 27 day of July, 2022.

My authorization as a notary of the State of New Mexico expires on the 12 day of June, 2023.

B. Bushong 7/27/2022  
Notary's Signature Date

Barbara J. Bushong  
Notary's Printed Name

<sup>1</sup> For Title V applications, the signature must be of the Responsible Official as defined in 20.2.70.7.AE NMAC:

