

**ENGINE SYSTEMS, INC.**175 Freight Road  
Rocky Mount, NC 27804Telephone: 252/977-2720  
Fax: 252/446-1134**TELEFAX**

**Date:** May 24, 2023  
**Company:** NRC Operations Center  
**Fax Number:** 301/816-5151  
**Verification No.:** 301/816-5100  
**Reference:** Report No. 10CFR21-0135, Rev. 0  
**From:** Dan Roberts  
**Page:** 1 of 5

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Dear Sir / Madam:

Following this cover is a copy of our report 10CFR21-0135, Rev. 0, for a 10CFR21 reportable notification on Woodward EGB-35P governor/ actuator with foreign material, P/N 9903-722, S/N 18847017.

A copy of this report will be mailed to the NRC Document Control Desk and to our affected nuclear customer.

Should you have questions, please let us know.

Sincerely,

ENGINE SYSTEMS, INC.

A handwritten signature in black ink that reads 'Dan Roberts' in a cursive, slightly slanted script.

Dan Roberts  
Quality Manager

/sjw

**ENGINE SYSTEMS, INC.**

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**Report No. 10CFR21-0135**

Rev. 0: 05/24/23

**10CFR21 REPORTING OF DEFECTS  
AND NON-COMPLIANCE**

COMPONENT: Woodward EGB-35P Governor/Actuator with Foreign Material  
Part Number 9903-722  
Serial Number 18847017

SYSTEM: Emergency Diesel Generator

CONCLUSION: Reportable in Accordance With 10CFR21

Prepared By: \_\_\_\_\_

Engineering Manager

Date: \_\_\_\_\_

5/24/23

Reviewed By: \_\_\_\_\_

Quality Manager

Date: \_\_\_\_\_

5/24/23

Report No. 10CFR21-0135

Record of Revisions  
Page: 1 of 1

REV	DATE	PAGE	DESCRIPTION
0	05/24/23		Original Issue.

Report No. 10CFR21-0135  
Revision: 0  
Date: 05/24/23  
Page: 1 of 2

**Pursuant to 10 CFR 21.21(d)(4), ESI is presenting the required information as follows:**

- (i) Name and address of the individual or individuals informing the Commission.

<i>Dan Roberts</i>	<i>John Kriesel</i>
<i>Quality Manager</i>	<i>Engineering Manager</i>
<i>Engine Systems Inc.</i>	<i>Engine Systems Inc.</i>
<i>175 Freight Rd.</i>	<i>175 Freight Rd.</i>
<i>Rocky Mount, NC 27804</i>	<i>Rocky Mount, NC 27804</i>

- (ii) Identification of the basic component supplied within the United States which fails to comply or contains a defect.

*Woodward Governor, P/N 9903-722, S/N 18847017*

- (iii) Identification of the firm supplying the basic component which fails to comply or contains a defect.

*Engine Systems Inc. (ESI)*

- (iv) Nature of the defect or failure to comply and the safety hazard which is created or could be created by such defect or failure to comply.

*An EGB-35P governor/actuator (governor) installed on a customer's emergency diesel generator failed soon after installation. Investigation revealed a piece of foreign material, a loose buffer plug, inside the governor that caused the failure. Since the governor is used to maintain fuel rack position of the diesel engine, failure of the governor would prevent the emergency diesel generator set from performing during a safety-event.*

- (v) The date on which the information of such defect or failure to comply was obtained.

*March 28, 2023*

- (vi) In the case of a basic component which contains a defect or fails to comply, the number and location of these components in use at, supplied for, being supplied for, or may be supplied for, manufactured, or being manufactured for one or more facilities or activities subject to the regulations in this part.

<i>Customer</i>	<i>Customer PO</i>	<i>ESI Sales Order</i>	<i>Part Number</i>	<i>Serial Number</i>	<i>ESI C-of-C Date</i>
<i>Duke Energy– Brunswick Nuclear Plant</i>	<i>00655050</i>	<i>8002096</i>	<i>9903-722</i>	<i>18847017</i>	<i>06/30/2015</i>

**Table 1: EGB-35P Governor/Actuator Affected by Foreign Material**

- (vii) The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.

*For Brunswick Nuclear Plant:*

*No action required. The affected governor has been returned to ESI.*

*For ESI:*

*The governor will be refurbished under ESI's 10CFR50 Appendix B program and certified for continued use at Brunswick Nuclear Plant. To prevent reoccurrence, ESI will revise the dedication requirements to enhance existing foreign material inspection practices to include a visual inspection where the buffer plug was located within the governor. The revisions are expected to be complete within 30 days but in all cases prior to future shipments.*

Report No. 10CFR21-0135  
Revision: 0  
Date: 05/24/23  
Page: 2 of 2

- (viii) Any advice related to the potential defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.

*The governor uses a buffer plug to retain the buffer piston and springs in the subgovernor case. All components required of the governor assembly were accounted for; the buffer plug discovered inside the governor was an extra component. Circumstances during original dedication activities in 2015 required disassembly of the governor. It was during this process the additional buffer plug was introduced into the governor. The governor tested satisfactorily and remained operable until the cumulative effect of contact between the metal buffer plug and internal governor gearing produced metal shavings (additional foreign material) of a sufficient amount to cause failure of the governor.*