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From: Mel Gray, EI  
To: Daniel Holody  
Date: 5/3/04 2:14PM  
Subject: Questions on HC EDG

Per our discussion.

Information in this record was deleted  
in accordance with the Freedom of Information  
Act, exemptions 5, 7C  
FOIA- 2004-314

N-5

Mail Envelope Properties (40968BEC.FDE : 4 : 9948)

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**Subject:** [REDACTED] questions on HC EDG  
**Creation Date:** 5/3/04 2:14PM  
**From:** Mel Gray

**Created By:** MXG3@nrc.gov

Recipients	Action	Date & Time
kp1_po.KP_DO	Delivered	05/03/04 02:14PM
DJH (Daniel Holody)	Opened	05/03/04 02:15PM
	Deleted	07/30/04 03:02PM

Post Office	Delivered	Route
kp1_po.KP_DO	05/03/04 02:14PM	

Files	Size	Date & Time
Hope Creek EDG.wpd	19948	05/03/04 02:12PM
MESSAGE	464	05/03/04 02:14PM

**Options**

<b>Auto Delete:</b>	No
<b>Expiration Date:</b>	None
<b>Notify Recipients:</b>	Yes
<b>Priority:</b>	Standard
<b>Reply Requested:</b>	No
<b>Return Notification:</b>	None

<b>Concealed Subject:</b>	No
<b>Security:</b>	Standard

<b>To Be Delivered:</b>	Immediate
<b>Status Tracking:</b>	All Information

Allegation Receipt Report  
(Use also for Staff Suspected Wrongdoing)

Date Received: Monday, May 3, 2004  
Received via:  Telephone  In-person  Letter  Facsimile

Allegation No. RI- A-  
(leave blank)

Site visit on Wednesday 4/28/2003 with request for inspection. Initial fact finding on 4/29-30/2004.  
Follow-up phone call on Monday, 5/3/2004.

Employee Receiving Allegation or suspecting wrongdoing (first two initials and last name): Mel Gray

Source of information (please check one box)

Allegor Name: \*unknown (See Note) Home Address: \* unknown  
Home Phone: \* unknown City/State/Zip: \* unknown

Allegor's Employer: \* unknown Allegor's Position/Title: \* unknown  
\* Do not complete these sections for issues of staff suspected wrongdoing.

Note: A [redacted] indicated that a concerned individual made the following assertions to [redacted] during a meeting. The assertions were made through the concerned individual by a second concerned individual whose identity was not identified to the [redacted]

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Facility: Hope Creek

Docket No. or License No.: 50-354

Was allegor informed of NRC identity protection policy? Yes \_ No X  
If H&I was alleged, was allegor informed of DOL rights? Yes \_ No \_ N/A X  
If a licensee employee or contractor, did they raise the issue to their management and/or ECP? Yes \_ No \_ N/A X  
Does the allegor object to referral of issues to the licensee? Yes \_ No \_

Provide allegor's direct response to this question verbatim on the line below:

Unknown  
Was confidentiality requested? Yes \_ No X  
Was confidentiality initially granted? Yes \_ No \_ N/A X  
Individual Granting Confidentiality: N/A

Criteria for determining whether the issue is an allegation:

Is it a declaration, statement, or assertion of impropriety or inadequacy? Yes / No  
Is the impropriety or inadequacy associated with NRC regulated activities? Yes / No  
Is the validity of the issue unknown? Yes / No

If No to any of the above questions, the issue is not an allegation and should be handled by other appropriate methods (e.g. as a request for information, public responsiveness matter, or an OSHA referral).

Allegation Summary or staff suspected wrongdoing: (Recipient of the allegation shall summarize each concern here - provide additional detail on reverse side of form, if necessary. If entering allegation electronically, highlight Allegation Summary in bold and use larger font size)

[redacted] called the NRC's Bob Bores on April 16, 2004 to indicate that [redacted] had met with a concerned individual. The concerned individual described issues with Hope Creek emergency diesel generators (EDGs) that a second concerned individual (previously employed at PSEG) had provided. The name of the former PSEG concerned individual was not provided to the [redacted] On April 28,

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2004, the [redacted] traveled to the Hope Creek Station and met with the SRI, Mel Gray to describe the statements of concern. He had hand written notes which he verbally stated made the following assertions: 7C

1. A Hope Creek EDG had problem a with metal fillings or grit in its lube oil or jacket water system. This was causing lube oil or jacket water leaks. PSEG did a fix that was not the best.

2. Also, a shaft needed replacement, but was not because of cost.

The SRI searched the notifications for something along these lines and identified notification [redacted] as a possible candidate. This notification was written on 4/26/03 by a maintenance individual. The problem described was that, because Engineering did not listen to the individual and flush the jacket water system, additional jacket water seal leaks developed. The Inspector reviewed with [redacted] the initial response to the notification and both agreed it sounded similar to the statements of concern being made. The inspector toured all four EDGs with [redacted] to show him the jacket water and intercooler pumps and common shaft that was described in the notification. Th inspector also discussed with the system engineer (with [redacted] observing) any plans for jacket water flushing. The inspector determined that, based on periodic jacket water sampling, PSEG plans to flush B EDG jacket water system in April 2006. This is tracked under notification [redacted]. No other EDG engine flushes are planned. B EDG pump seals do not currently leak. 7C

The SRI communicated to [redacted] that he had talked to an individual in June 2003 who believed that grit was the cause of chronic EDG pump seal failures. He talked with the individual in June 2003 when the A EDG intercooler seal leaked and HC began to shutdown per TS because of the problem. The individual believed that jacket water system had grit from sand castings during initial fabrication, and grit embedded in seals and caused chronic leaks. 7C

PSEG subsequently disassembled the A EDG jacket water and intercooler pumps and shaft in July 2003 and found a seized thrust bearing. One result of the root cause evaluation done on this was that chronic seal leaks on EDGs may have been due to lack of design spec numbers in the PSEG seal replacement procedure to check shaft thrust and bearing clearance. PSEG could not ensure jacket water and intercooler pump seals were consistently being shimmed correctly w/o checking these parameters. This would look like wear out of seals prematurely. The inspector referenced IR 354/2003-004. It documents an NCV finding for PSEG not having design specifications in pump seal replacement procedure when it was available in a vendor document previously used in a B EDG work order.

[redacted] left the resident office thereafter (to support an unrelated public meeting that evening). 7C

The inspector performed follow-up inspection on Thursday and Friday, April 29-30, 2004, and determined the following details regarding notification [redacted] In the notification description:

1. An individual stated that the jacket water pump seal on the C EDG leaked in 9/02. The individual initiated a level 2 notification at that time [redacted]. The individual asserted in 9/02 the seals were likely failing due to corrosion products in the jacket water system.

2. The individual's notification [redacted] was closed to order 70026906, then to 70026865 for PSEG engineering personnel to evaluate. PSEG engineering did not agree with the individual that the C EDG jacket water pump seal failed due to corrosion products. Engineering asserted that the jacket water seal faces were heavily worn. There was some debris in the soft side seal face, but this did not cause the seal failure. Engineering concluded the seal wore due to being inservice for 6 years. Therefore Engineering did not identify a jacket water system flush as a corrective action.

3. The Individual asserted in notification [redacted] that, because engineering did not ensure the jacket water system was flushed, there were additional jacket water or intercooler pump seal failures. He cited notification [redacted] where the B EDG developed a jacket water leak. He further cited notification [redacted] where the B EDG common pump shaft for jacket water and intercooler pumps had grooves and required replacement.

4. Notification [redacted] was closed based on engineering response that debris was not cause of seal leaks.

The inspector communicated the above four points to [REDACTED] on Monday, May 3, 2004. [REDACTED] indicated that his management had these follow-up questions:

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- a. Who concluded that the soft material in the seal face could not cause the leak?
- b. What was the basis for deferring the B EDG flush until April 2006?
- c. What was the history of shaft replacement for all four EDGs?
- d. What was the history of pump seal replacements for all four EDGs?

The meeting with the [REDACTED] on April 28 was viewed as a request for inspection, as was the follow-up activity on Thursday and Friday. Also the issue was well known to the NRC and no new information was provided during the initial discussion. The decision was made by Branch 3 on Monday, May 3, 2004 to submit this as an allegation because of the uniqueness of the situation and to allow a panel to consider how best to address these assertions and additional follow-up questions from the [REDACTED]

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Functional Area (please check one box):

- Academic  Decommissioning Materials  Decommissioning Reactor  Exempt Distribution
- General Licensee  Gun Sights  Irradiators  Medical  Nuclear Gauges  Nuclear Laundry
- Nuclear Pharmacy  Power Reactor  Radiography  Research and Development (R&D)
- Research/Test Reactor  Safeguards  SNM  Teletherapy  Transportation  Vendor
- Veterinary Non-human  Waste Disposal  Well Logging  Other: \_\_\_\_\_

Discipline for each concern (place the concern no(s). (either 1, 2, 3, etc.) in the box provided):

- Chemistry  Chilling Effect  Civil/Structural  Construction  Corrective Action
- Discrimination  Electrical  Emergency Preparedness  Employee Concerns Program
- Engineering  Environmental  Environmental Qualification  Falsification  Fire Protection
- Fitness-for-Duty  Health Physics  HVAC  Industrial Safety  Inservice testing
- Instrumentation and Control  Maintenance  Mechanical  Misadministration  NDE
- Operations  Procurement  Quality Assurance  Radwaste  Safeguards  Security
- Source disconnect  Startup testing  Training/qualification  Transportation  Unsupervised Radiography  Wrongdoing  Other: \_\_\_\_\_

Detailed Description of Allegation or staff suspected wrongdoing: (Do not state the allegor's name in this section - simply refer to the individual as the allegor)

When taking the allegation, ask questions such as

- WHAT IS THE ALLEGATION?
- WHAT IS THE REQUIREMENT/VIOLATION?
- WHERE IS IT LOCATED?
- WHEN DID IT OCCUR?
- WHO IS INVOLVED/WITNESSED?
- HOW/WHY DID IT OCCUR?
- WHAT EVIDENCE CAN BE EXAMINED?
- WHAT IS THE STATUS OF THE LICENSEE'S ACTIONS?

How did the allegor find out about the concern(s); other individuals NRC should contact for additional information; records NRC should review; whether the allegor raised the concerns with his or her management; allegor's preference for method and time of contact.