



UNITED STATES  
**NUCLEAR REGULATORY COMMISSION**  
REGION I  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

March 9, 2004

Docket No. 99990001  
EA No. 04-035

License No. General License

Dean Seng  
Plant Manager  
Saint-Gobain Performance Plastics Corporation  
150 Dey Road  
Wayne, NJ 07470

**SUBJECT: INSPECTION 99990001/2004001, SAINT-GOBAIN PERFORMANCE PLASTICS CORPORATION, WAYNE, NEW JERSEY SITE**

Dear Mr. Seng:

On January 14, 2004, Donna Janda and Diana Diaz of this office conducted a special inspection at your Wayne, New Jersey facility. The inspection was limited to a review of the circumstances surrounding the loss of an NDC Systems Model No. 103 backscatter thickness gauge, containing 150 millicuries of americium-241, and control of other generally-licensed devices. The preliminary findings of the inspection were discussed with you and your staff at the conclusion of the inspection. The enclosed report presents the results of this inspection.

Based on the results of this inspection, an apparent violation was identified and is being considered for escalated enforcement in accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy), NUREG-1600. The apparent violation involves the failure to properly dispose of a thickness gauge containing byproduct material.

Three additional apparent violations of lesser significance were identified and are not being considered for escalated enforcement. One apparent violation involves the failure to assure that all labels affixed to the device at the time of receipt and bearing a statement that removal of the label is prohibited are maintained thereon, and comply with all instructions and precautions provided by such labels. The second apparent violation involves the failure to appoint an individual responsible for having knowledge of the appropriate regulations and requirements and the authority for taking required actions to comply with appropriate regulations and actions. The third apparent violation involves the failure to report the transfer of a device containing byproduct material (an EXIT sign containing tritium) to the NRC within 30 days.

The circumstances surrounding the apparent violations, the significance of the issues, and the need for lasting and effective corrective action were discussed with members of your staff at the inspection exit meeting on January 14, 2004, and during a telephone conversation on March 2, 2004. Therefore, it may not be necessary to conduct a predecisional enforcement conference in order to enable the NRC to make an enforcement decision.

The NRC received your letter dated February 5, 2004, and is aware of the prompt actions your company implemented to ensure the device was disposed correctly. In addition, the NRC is

aware of the corrective actions that your company has implemented in order to prevent the recurrence of such an incident and of your company's full cooperation in subsequent discussions and inspections related to this matter. However, you should be aware that Section VII.A.1.g. of the NRC Enforcement Policy states that the NRC should normally exercise discretion to propose imposition of a civil penalty of at least the base amount for violations involving the loss, abandonment, or improper transfer or disposal of a sealed source or device. Since one of the apparent violations involves the improper disposal of a sealed source containing 150 millicuries of americium-241, the NRC is considering imposition of a base civil penalty which is based on approximately three times the expected average cost of the authorized disposal. The NRC may consider adjusting the civil penalty amount to a more appropriate base amount if you can demonstrate that three times the actual cost of disposal would be significantly less than \$7,500. However, the NRC will not normally decrease the civil penalty to an amount below the lowest base civil penalty for such cases, \$3,000.

Before the NRC makes its enforcement decision, we are providing you an opportunity to either (1) respond to the apparent violations addressed in this inspection report within 30 days of the date of this letter or (2) request a predecisional enforcement conference. Please contact Donna Janda at (610) 337-5371 within 7 days of the date of this letter, to inform us as to which of the above two options you choose. Please note that predecisional enforcement conferences are typically open for public observation. The NRC announces predecisional enforcement conferences to the public by issuing a press release.

If you choose to provide a written response, it should be clearly marked as a "Response to Apparent Violations in Inspection Report No. 99990001/2004001" and should include for each apparent violation: (1) the reason for the apparent violation, or, if contested, the basis for disputing the apparent violation, (2) the corrective steps that have been taken and the results achieved, (3) the corrective steps that will be taken to avoid further violations, and (4) the date when full compliance will be achieved. In presenting your corrective action, you should be aware that the promptness and comprehensiveness of your actions will be considered in assessing any civil penalty for the apparent violations. The guidance in the enclosed NRC Information Notice 96-28, "SUGGESTED GUIDANCE RELATING TO DEVELOPMENT AND IMPLEMENTATION OF CORRECTIVE ACTION," may be helpful. Your response may reference or include previous docketed correspondence, if the correspondence adequately addresses the required response. If an adequate response is not received within the time specified or an extension of time has not been granted by the NRC, the NRC will proceed with its enforcement decision or schedule a predecisional enforcement conference.

In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection report may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

In accordance with 10 CFR 2.390, a copy of this letter, its enclosures, and your response (if you choose to provide one) will be placed in the NRC Public Document Room (PDR) and will be accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html>. To the extent

D. Seng 3  
Saint-Gobain Performance Plastics Corporation

possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the PDR without redaction.

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If you have any questions regarding this inspection, please contact Donna Janda of my staff at the number provided above.

Sincerely,

***Original signed by George Pangburn***

George Pangburn, Director  
Division of Nuclear Materials Safety

Enclosures:

1. Inspection Report No. 99990001/2004001
2. NUREG 1600 (Enforcement Policy)
3. NRC Information Notice 96-28

cc:

Leticia L. Russ, Health, Safety and Environmental Engineer  
State of New Jersey

D. Seng 5  
Saint-Gobain Performance Plastics Corporation

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U.S. NUCLEAR REGULATORY COMMISSION  
REGION I

INSPECTION REPORT

Inspection No. 99990001/2004001  
Docket No. 99990001  
License No. General License, 10 CFR 31.5  
Licensee: Saint-Gobain Performance Plastics  
Address: 150 Dey Road  
Wayne, New Jersey 07470  
Location Inspected: 150 Dey Road  
Wayne, New Jersey 07470  
Inspection Date: January 14, 2004

Inspectors:	<b>Original signed by Donna M. Janda for:</b>	<b>3/4/2004</b>
	_____ Diana Diaz-Toro Health Physicist	_____ date
Approved By:	<b>Original signed by:</b>	<b>3/4/2004</b>
	_____ Donna M. Janda Health Physicist	_____ date
Approved By:	<b>Original signed by Elizabeth Ullrich for:</b>	<b>3/4/2004</b>
	_____ John D. Kinneman, Chief Nuclear Materials Safety Branch 2 Division of Nuclear Materials Safety	_____ date

## **EXECUTIVE SUMMARY**

### Saint-Gobain Performance Plastics NRC Inspection Report No. 99990001/2004001

On January 12, 2004, Region I was informed that a radioactive source was identified at the Onyx Greentree Landfill (Onyx) in Kersey, Pennsylvania, on December 31, 2003. The source was located in a shipment of municipal waste from the company's transfer station in Totawa, New Jersey. On January 13, 2004, the source was identified as a backscatter gauge, distributed under a general license to Saint-Gobain Performance Plastics (Saint-Gobain), Wayne, New Jersey. The device was an NDC Systems Model 103 thickness gauge, Serial No. 867, containing 150 millicuries of americium-241 in a source with Serial No. 737LA. Region I contacted a Saint-Gobain representative who confirmed ownership of the device.

On January 14, 2004, NRC Region I conducted a reactive inspection at the Saint-Gobain facility in Wayne, New Jersey. The inspectors met with Saint-Gobain representatives to discuss the loss of the gauge and control of other generally-licensed devices. Saint-Gobain has determined that the most likely cause of loss of the device was that a maintenance person had inadvertently disposed of the device as regular trash. The inspectors conducted a site tour and visually observed the three additional NDC Systems devices. The devices appeared to be properly installed and functioning. Saint-Gobain representatives are attempting to account for all of the generally-licensed devices the company provided in a list to the NRC in 2002.

Saint-Gobain contracted with Onyx to ship the device back to NDC Systems, which is authorized to receive the device pursuant to State of California License No. GL-1933-70. The device was shipped to NDC Systems on February 4, 2004.

Four apparent violations were identified during the inspection :

1. Failure to assure that all labels affixed to the device at the time of receipt and bearing a statement that removal of the label is prohibited are maintained thereon, and comply with all instructions and precautions provided by such labels is an apparent violation on 10 CFR 31.5(c)(1).
2. Failure to properly dispose of a device containing byproduct material is an apparent violation of 10 CFR 31.5(c)(8)(i).
3. Failure to report to the NRC the transfer of a device containing byproduct material within 30 days of the transfer to a specific licensee is an apparent violation of 10 CFR 31.5(c)(8)(ii).

4. Failure to appoint an individual responsible for having knowledge of the appropriate regulations and requirements and the authority for taking required actions to comply with appropriate regulations and actions is an apparent violation of 10 CFR 31.5(c)(12).

## **REPORT DETAILS**

### **I. Background**

On December 31, 2003, a radioactive source was identified in a municipal waste shipment at the Onyx Greentree Landfill (Onyx) in Kersey, Pennsylvania. The truck, owned by the company that operates the landfill, contained a consolidated shipment of municipal waste from the company's transfer station in Totawa, New Jersey. Personnel were not available immediately; therefore, the truck was held onsite until an evaluation could be performed. On January 7, 2004, company representatives retrieved the source, which was a metal container, approximately 2 inches by 4 inches by 8 inches, with electrical connections at one end. A small cylinder at the center of one end measured 28 millirem per hour at about 8 inches from the cylinder. Assisted by an instrumentation consultant, the company evaluated the source with a portable multi-channel analyzer and determined it contained Am-241. There were no markings or labels on the outside of the container, except a notation "10.7 lbs". On January 12, 2004, Region I was informed of the event.

On January 13, 2004, a health physics consultant opened the aluminum rectangular container and found a cylindrical device, which was intact with all required labels. It was later determined that the device had been encased in the aluminum container by Saint-Gobain, covering the required labeling. The device is an NDC Systems Model 103 thickness gauge, Serial No. 867, containing 150 millicuries of Am-241 in a source with Serial No. 737LA. This device was distributed under a general license in 1983 to Saint-Gobain in Wayne, New Jersey. The health physics consultant performed removable contamination surveys of the source and device, and determined that the source was intact and not leaking. The consultant repackaged the device in accordance with the manufacturer's recommendations. According to the manufacturer's records, this device was last leak tested in June 2001. Region I contacted a Saint-Gobain representative who confirmed ownership of the device.

### **II. Licensee Preliminary Investigation of Loss of Thickness Gauge**

#### **a. Inspection Scope**

The inspectors reviewed the circumstances related to the improper disposal of a thickness gauge containing americium-241 (Am-241) at the Saint-Gobain facility.

#### **b. Observations and Findings**

On January 14, 2003, NRC Region I conducted a reactive inspection at the Saint-Gobain facility in Wayne, New Jersey. The inspectors met with Saint-Gobain representatives to discuss the loss of the device and control of other generally-licensed devices at the facility. According to Saint-Gobain representatives, the thickness gauge was removed from Line 5 of the High Temperature Extrusion Line during an equipment upgrade in 1995. Saint-Gobain has not determined the use of the gauge in the R&D Building or when the aluminum

cover was placed over the gauge. R&D operations were discontinued at this site in late 2002 and moved to a Saint-Gobain facility in Massachusetts. Saint-Gobain has determined that the most likely cause of loss of the device was that a maintenance person had inadvertently disposed of the device as regular trash after disassembly of equipment at the R&D Building during December 2003.

c. Conclusions

The failure to assure that all labels affixed to the device at the time of receipt and bearing a statement that removal of the label is prohibited are maintained thereon, and comply with all instructions and precautions provided by such labels is an apparent violation on 10 CFR 31.5(c)(1). Specifically, the required labels were covered by an aluminum container and therefore not visible.

The failure to properly dispose of a device containing byproduct material is an apparent violation of 10 CFR 31.5(c)(8)(i).

### **III. Management Oversight of the Program**

a. Inspection Scope

The inspectors reviewed the management oversight of the generally-licensed device program.

b. Observations and Findings

From approximately June 2001 until January 13, 2004, Saint-Gobain did not have a person responsible for day-to-day compliance with appropriate regulations and requirements pertaining to generally-licensed devices. The maintenance engineer who previously had this responsibility was laid off approximately two years ago and a replacement was not designated for some time, resulting in the loss of this job responsibility. Saint-Gobain has now designated a process engineer to be responsible for the generally-licensed device program at the facility. This person reports directly to the Production Manager.

c. Conclusions

The failure to appoint an individual responsible for having knowledge of the appropriate regulations and requirements and the authority for taking required actions to comply with appropriate regulations and actions is an apparent violation of 10 CFR 31.5(c)(12).

#### IV. Use, Transfer, and Control of Generally-Licensed Devices

a. Inspection Scope

The inspectors reviewed the use, transfer and control of generally-licensed devices at the Saint-Gobain facility with company representatives, and the regulations pertaining to them.

b. Observations and Findings

Saint-Gobain provided a list of 9 generally-licensed devices in March 2002 in response to a registration request by NRC. According to the NRC General License Tracking System, Saint-Gobain has the following generally-licensed devices at the Wayne, New Jersey facility:

Manufacturer	Model No.	Serial No.	Radionuclide	Activity (mCi)
NDC Systems	103	3609*	Am-241	150
	103	3610	Am-241	150
	103	867*	Am-241	150
	302	8385	Kr-85	200
Asoma-Twin City, Inc.	NA	064-220	Tl-204	0.05
	064	1860	Tl-204	0.05
	NA	NA	Tl-204	0.045
	NA	C676418843	Tl-204	0.045
SRB Technologies (formerly Brandhurst)	B100U10	503569	H-3	9900

NA - Not available

\* - These devices are listed in GLTS as containing 25 mCi of Am-241; however, according to the manufacturer, these devices were labeled incorrectly and actually contain 150 mCi of Am-241.

The inspectors and Saint-Gobain representatives conducted a site tour and visually observed three NDC Systems devices: two Model No. 103 devices (Serial Nos. 3609 and 3610) and one Model No. 302 device (Serial No. 8385). The devices are located in the Production Building on the High Temperature Extrusion Lines. All three devices appeared to be properly installed and functioning. The inspectors performed an independent survey of the devices using a Ludlum Model 14C survey meter (Serial No. 23196G). All readings were less than 0.4 millirem per hour on contact.

In a letter dated February 5, 2004, Saint-Gobain provided information regarding the disposition of three of the TI-204 devices. These devices, which are backscatter gauges with Serial Nos. 064-220, 064-1860, and C676418843, were returned to the manufacturer. One TI-204 device listed in the table does not have a model number or serial number associated with it and the manufacturer has records for only three of the devices. Therefore, it is uncertain that Saint-Gobain actually possessed this device. The device containing H-3, which is an EXIT sign, was removed in 1989 during building renovations. Saint-Gobain does not have any records regarding transfer of this EXIT sign.

c. Conclusions

The failure to report the transfer of a device containing byproduct material (an EXIT sign containing H-3) within 30 days of the transfer to a specific licensee is an apparent violation of 10 CFR 31.5(c)(8)(ii).

## **V. Transfer/Disposal of the Thickness Gauge**

a. Inspection Scope

NRC inspectors discussed with Saint-Gobain representatives the actions to be taken by Saint-Gobain for proper disposal or transfer of the thickness gauge currently located at the Onyx Greentree Landfill.

b. Observations and Findings

Saint-Gobain representatives contracted with Onyx and a health physics consultant to transfer the gauge back to the manufacturer, NDC Systems, which is authorized to receive it pursuant to State of California License No. GL-1933-70. The device was transferred to NDC Systems on February 4, 2004.

c. Conclusions

No violations or safety concerns were identified.

## **VI. Exit Meeting**

The inspectors met with Saint-Gobain representatives on the afternoon of January 14, 2004. The inspectors discussed the preliminary findings of the inspection with the meeting attendees. The apparent violations included the failure to properly dispose of licensed material, the failure to appoint an individual responsible for the generally-licensed device program, and the failure to assure that all labels affixed to the device are maintained and comply with all instructions and precautions provided by such labels. The inspectors also discussed the requirements for the written report Saint-Gobain will provide to NRC regarding the loss of licensed material. The inspectors provided a copy of the NRC

Enforcement Manual and a general description of the enforcement process. The inspectors discussed with the licensee that decisions regarding apparent violations are not made until all the information is reviewed.

NRC inspectors discussed with Saint-Gobain representatives the regulations in 10 CFR 31.5 regarding the proper use, transfer and control of generally-licensed devices. The inspectors provided copies of 10 CFR Parts 20 and 31 which were marked to show applicable regulations. The inspectors reviewed the requirements for transfer and/or disposal of generally-licensed devices.

The inspectors noted that Saint-Gobain representatives were still searching for information on the disposition of the TI-204 backscatter devices and the EXIT sign containing H-3. The inspectors stated that any additional information would be discussed with the Saint-Gobain Health, Safety and Environmental Engineer as requested by the general licensee.

On March 2, 2004, NRC inspectors discussed with Saint-Gobain management the apparent violations, including the failure to report the transfer of the EXIT sign containing H-3 to the NRC. This apparent violation was determined based on the information provided in Saint-Gobain's letter dated February 5, 2004. The inspectors explained that NRC was sending Saint-Gobain an inspection report and a letter regarding the apparent violations. Saint-Gobain would have the choice of either responding to the apparent violations addressed in the inspection report or requesting a predecisional enforcement conference.

## PARTIAL LIST OF PERSONS CONTACTED

### Licensee

- \*# Beth Miller-Chou, Process Engineer
- \*# Robert Reynolds, Manager of Engineering Services
- \*#% Leticia Russ, Health, Safety and Environmental Engineer
- \*# Brian Shaffer, Production Manager
- % Dean Seng, Plant Manager

- \* present at entrance meeting
- # present at exit meeting
- % present during telephone call on March 2, 2004