NRC FORM 591M PART 1
(4-2008)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
W.R. Grace and Company 5215 Kennedy Avenue East Chicago, Indiana REPORT NUMBER(S) 2008-001	Region III 2443 Warrenville Rd. Lisle, IL 60018

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
030-14415	13-11504-02	11/19/08

LICENSEE:
The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

☑ 1. Based on the inspection findings, no violations were identified.

☐ 2. Previous violation(s) closed.

☐ 3. The violations(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, NUREG-1600, to exercise discretion, were satisfied.

_____ non-cited violation(s) were discussed involving the following requirement(s):

☐ 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

(Violations and Corrective Actions)

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE	DATE
LICENSEE			
NRC INSPECTOR	Robert G. Gattone, Jr.	Robert G. Gattone, Jr.	11/19/08

NRC FORM 591M PART 3
(4-2008)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

Docket File Information

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
W.R. Grace and Company REPORT NUMBER(S) 2008-001	REGION III

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
03014415	13-11504-02	11/19/08

6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS AREAS
87124	03.01- 03.07

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S)	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
03120	5	Martin Bourquin, RSO	423-697-8216

☑ Main Office Inspection Next Inspection Date: 11/19/2013

☐ Field Office Inspection

☐ Temporary Job Site Inspection

PROGRAM SCOPE

The licensee employed about 40 individuals to manufacture colloidal silica and sodium silicate for casting and coating molds. The licensee used several fixed gauges to measure level of vessel contents and density within vessels and pipes. All of the gauges contained cesium-137 sources. Based on a teleconference with the RSO who was not at the facility during the inspection, the RSO visited the facility at least every 6 months to assess implementation of the radiation safety program, which included having discussions with facility management, reviewing radiation dose records, reviewing leak test records, reviewing shutter check records, conducting a physical inventory of all licensed material, and verifying that radiation warning labels were legible.

Performance Observations

The inspector observed: (1) an authorized user conduct an operability check on a Ludlum Model 3, Serial 49897 that was last calibrated in October 2008; (2) an authorized user identify a failed survey instrument battery test result, replace the batteries, and verify that the battery test passed prior to using it to conduct radiation surveys; (3) an authorized user conduct a physical inventory of licensed material and verify that all of the material was accounted for; (4) that his survey instrument read 12 millirem per hour at the surface of a pig containing a sealed source, and the licensee's measurement of the same area resulted in 13 millirem per hour; (5) that the individuals who used the gauges were authorized; (6) that his survey instrument read 0.7 millirem per hour at the surface of a lock box containing a sealed source; (7) licensee staff implement the lock-out procedure; (8) an authorized user demonstrate how he had previously collected leak test samples from gauges; (9) an authorized user demonstrate how he would respond to a fire involving licensed material; (10) licensee staff don dosimetry badges; and (11) that the maximum dose to an individual from 2005 through 9/30/08 was 10 millirem whole body based on dosimetry badge processing records.

In addition, the inspector noted that the "South Regenerator Bottom" gauge (i.e., Ronan Model SA1-F37, Serial 7653) had shutter lock-out hardware with grooved openings that could eventually compromise the ability to lock the shutter closed if the groove openings widened with time. Specifically, the metal loops for threading the padlock had grooved openings such that, if the grooves eventually got wider, the padlock could be removed from the gauge without unlocking it. In response, the licensee committed to take actions to ensure that none of the gauges have shutter lock-out hardware with grooved openings that could eventually compromise the ability to lock the shutter closed if the groove openings widened with time.