

September 15, 1987

Docket No: 30-19960  
License No: 37-10059-03  
EA 87-175

MEMORANDUM FOR: James Lieberman, Director, OE  
FROM: William T. Russell, Regional Administrator, RI  
SUBJECT: PROPOSED CIVIL PENALTY - BP OIL, INC.  
MARCUS HOOK, PENNSYLVANIA

Enclosed for your review and concurrence is a proposed enforcement action (letter and Notice of Violation and Proposed Imposition of Civil Penalty) for eight violations identified during an NRC inspection conducted at the licensee's facility in Marcus Hook, Pennsylvania. The inspection was conducted after a licensee employee notified Region I that four nuclear gauges containing radioactive sources had been removed from an acid storage tank at this refinery. The individuals who removed the gauges, and the supervisor who assigned this task, did not recognize that the flanged components removed from the outside of the tank were, in fact, nuclear gauges. When the gauges were removed, the sources were in the unshielded position. The gauges, which were located at various elevations on the tank, were installed in 1972 to measure liquid level, but had never operated properly.

Prior to or during removal of the gauges, approximately 27 individuals performed maintenance work inside or on the tank without being aware of the gauges or the fact that radiation levels in excess of regulatory limits existed in the vicinity of the gauges. A similar problem involving excessive radiation levels in another tank occurred at the licensee's facility in 1983, but the corrective actions taken at that time did not prevent recurrence. Further, the 1983 incident was not reported to the NRC.

Although the violations did not result in radiation exposure in excess of regulatory limits, these violations demonstrate inadequate control of, and unauthorized access to, licensed material, and created a substantial potential for exposure in excess of the limits. Therefore, the violations are categorized in the aggregate at Severity Level III and a \$500 civil penalty is proposed. We considered increasing the civil penalty amount because of the repetitive nature of the event. However, we do not recommend an increase in the civil penalty amount because the licensee's corrective actions in response to the most recent event, taken at their own initiative, were considered unusually prompt and extensive. The corrective actions included: (1) providing site specific training for supervisors and other appropriate personnel; (2) reviewing and updating Accident Prevention Procedures for nuclear gauges; (3) updating the Vessel Entry Permit to include a separate block clearly requiring

OFFICIAL RECORD COPY

CP BP OIL - 0001.0.0  
09/15/87

8803020109 870915  
REG1 LIC30  
37-10059-03 DCD

1E:87

that the status of nuclear gauges be checked; (4) adding nuclear gauges to the monthly check list of safety equipment; and (5) reviewing posting and labeling in the refinery. Further, within six days of the end of the inspection, the licensee had conducted a thorough investigation, prepared a comprehensive report, and sent the report to the NRC. A copy of that report is included as Attachment B to the enclosed inspection report.

ORIGINAL SIGNED BY:  
JAMES M. ALLAN  
William T. Russell  
Regional Administrator

## Enclosures:

1. Letter and "Notice of Violation and Proposed Imposition of Civil Penalty"
2. Inspection Report No. 87-01
3. Relevant Regulatory Requirements
4. Documentation Quality Control Checklist

## cc w/encls:

Enforcement Directors, R II - III  
Enforcement Officers, RIV - V  
J. Goldberg, OGC  
R. Cunningham, NMSS  
B. Summers, OE (2)  
K. Abraham, PAO

RI:EO  
Holody/mjh/mlb  
09/10/87

DEAN  
Allan  
09/15/87

DI:DRSS  
Kinneman  
09/10/87

RA  
Russell  
09/16/87

DI:DRSS  
Joyner  
09/11/87

DI:DRSS  
Martin  
09/11/87

DI:DRSS  
Gutierrez  
09/15/87

OFFICIAL RECORD COPY

CP BP OIL - 0002.0.0  
09/15/87

Docket No. 30-19960  
License No. 37-10059-03  
EA 87-175

BP Oil, Inc.  
ATTN: Mr. E. S. Kulinski  
Refinery Manager  
Marcus Hook, Pennsylvania 19061

Gentlemen:

Subject: NOTICE OF VIOLATION AND PROPOSED IMPOSITION OF CIVIL PENALTY  
(NRC Inspection No. 87-01)

This letter refers to the special NRC safety inspection of activities authorized by NRC License No. 37-10059-03 conducted on July 20-22, 1987 at your facility in Marcus Hook, Pennsylvania. The report of the inspection was forwarded to you on August 27, 1987. The inspection was conducted to review the circumstances associated with an event identified and reported to the NRC by an individual working at the refinery. The event involved (1) work inside of, or near, a tank where radiation levels in excess of regulatory limits existed in the vicinity of four gauges containing radioactive sources, and (2) subsequent removal of the nuclear gauges from the tank by individuals not authorized to perform this activity. During the inspection, eight violations of NRC requirements were identified. On September 3, 1987, we held an enforcement conference with you and members of your staff during which the violations, their causes, and your corrective actions were discussed.

The violations, which are described in the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice), include, but are not limited to: excessive radiation levels inside an acid storage tank, an unrestricted area; performance of maintenance by approximately 27 individuals inside or near the tank without a radiation survey being performed prior to the work (at the time, the radiation levels inside the tank exceeded 2 millirem per hour, and were as high as 16 rem per hour), and without the sources being in the locked and shielded position; removal of the nuclear gauges from the tank, by unauthorized individuals, after the maintenance was completed, while the gauges were in the unshielded position; and failure to place the gauges, once removed, in a shielded storage container.

Although the 27 individuals who had entered, or worked near, the tank while the sources were exposed did not receive radiation exposures in excess of regulatory limits, the NRC is concerned that the potential existed for such an exposure. The NRC is also concerned that a similar violation involving excessive radiation levels in another vessel was identified by your staff in 1983, but your corrective actions did not prevent this recurrence. Further, that previous incident was not reported to the NRC, as required. The violations demonstrate the importance of increased management attention to the radiation safety program to ensure (1) adherence to NRC requirements and safe performance of licensed activities; and (2) prompt and effective correction of deficiencies when they are identified.

OFFICIAL RECORD COPY

CP BP OIL - 0003.0.0  
09/15/87

To emphasize this need, I have been authorized, after consultation with the Director, Office of Enforcement, and the Deputy Executive Director for Regional Operations, to issue the enclosed Notice of Violation and Proposed Imposition of Civil Penalty in the amount of Five Hundred Dollars (\$500) for the violations described in the enclosed Notice. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987) (Enforcement Policy), the violations described in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem to focus on their underlying causes, namely, a failure to take adequate corrective actions to prevent recurrence of prior violations and to ensure proper control and handling of nuclear gauges. The NRC recognizes that your corrective actions in response to this recent incident were unusually prompt and extensive, and therefore, considered partial mitigation of the civil penalty. However, mitigation was considered inappropriate in view of the previous incident in 1983, and the failure to report that incident to the NRC, as required.

You are required to respond to the enclosed Notice and should follow the instructions specified in the Notice in preparing your response. In your response, you should document the specific actions taken to correct the violations and any additional actions you plan to prevent recurrence. Your response to this Notice, including your proposed corrective actions and the results of future inspections will be considered in determining whether further enforcement action is necessary to ensure compliance with NRC regulatory requirements.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed Notice will be placed in the NRC's Public Document Room.

The responses directed by this letter and the enclosed Notice are not subject to the clearance procedures of the Office of Management and Budget as required by the Paperwork Reduction Act of 1980, PL 96-511.

Sincerely,

William T. Russell  
Regional Administrator

Enclosure: Notice of Violation and  
Proposed Imposition of  
Civil Penalty

cc w/encl:  
Public Document Room (PDR)  
Nuclear Safety Information Center (NSIC)  
Commonwealth of Pennsylvania

bcc w/encl:

Region I Docket Room (w/concurrences)  
SECY

J. Bradburne, OGPA

J. Taylor, DEDRO

W. Russell, RI

D. Holody, RI

R. Cunningham, NMSS

J. Lieberman, OE

J. Goldberg, OGC

Enforcement Directors, RII-RIII

Enforcement Officers, RIV-V

F. Ingram, OGPA

J. Crooks, AEOD

B. Hayes, OI

S. Connelly, OIA

E. Flack, OE

V. Miller, NMSS

D. Nussbaumer, OGSP

OE/ES File

OE/EA File

DCS

RI:ES *dyn*  
Holody/mjh/mlb  
09/10/87

*[Signature]*  
NMSS  
Kinneman  
09/10/87

*[Signature]*  
RI:DRSS  
Joyner  
09/11/87

*[Signature]*  
RI:DRSS  
Martin  
09/11/87

*[Signature]*  
Gutierrez  
09/15/87

*[Signature]*  
Alfonso  
9/15

*[Signature]*  
Russell  
9/16

OE  
Flack  
09/ /87

NMSS  
Cunningham  
09/ /87

OGC  
Goldberg  
09/ /87

OE  
Lieberman  
09/ /87

DEDRO  
Taylor  
09/ /87



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

BP Oil, Inc.  
Marcus Hook, Pennsylvania 19061

Docket No. 30-19960  
License No. 37-10059-03  
EA 87-175

On July 20-22, 1987, a special NRC safety inspection was conducted at the licensee's facility in Marcus Hook, Pennsylvania to review the circumstances surrounding an event reported to the NRC by a worker at the facility. The event involved the relocation of nuclear gauges at the facility by unauthorized personnel, contrary to NRC requirements. During the inspection, other violations of NRC requirements were identified. In accordance with the "General Statement of Policy and Procedure for NRC Enforcement Actions," 10 CFR Part 2, Appendix C (1987), the Nuclear Regulatory Commission proposes to impose a civil penalty pursuant to Section 234 of the Atomic Energy Act of 1984, as amended (Act), 42 U.S.C. 2282, and 10 CFR 2.205. The particular violations and the associated civil penalty are set forth below:

- A. Condition 15 of License No. 37-10059-03 requires, in part, that removal from service and relocation of non-portable devices containing sealed sources be performed only by persons specifically licensed by the NRC or an Agreement State to perform such service. Condition 16 of License No. 37-10059-03 requires that the licensee conduct its program in accordance with the licensee's application for license dated March 28, 1983, which states, in Item IV, that the licensee will contact the nuclear gauge manufacturer to assist in removing the gauge from service and relocation.

Contrary to the above, on July 16, 1987, four Ohmart model SHLM sealed-source non-portable gauges, each containing approximately 20 millicuries of cesium-137, were removed from Acid Storage Drum No. PV-2504:

1. by persons not specifically licensed to perform this service, and
  2. without the gauge manufacturer being contacted prior to removal of the gauges from service.
- B. 10 CFR 20.105(b)(1) requires that radiation levels in unrestricted areas be limited so that an individual continuously present in the area could not receive a radiation dose in excess of 2 millirems in any hour. 10 CFR 20.3(a)(17) defines an unrestricted area as an area to which access is not controlled by the licensee for the purpose of protection of individuals from exposure to radiation and radioactive materials.

Contrary to the above, on July 14-16, 1987, radiation levels existed in an unrestricted area, namely, the inside of Acid Storage Drum No. PV-2504, such that an individual present in the area for one hour could receive a radiation dose of greater than 2 millirems.

OFFICIAL RECORD COPY

CP BP OIL - 0007.0.0  
09/15/87

- C. Condition 16 of License No. 37-10059-03 requires that licensed material be used in accordance with the statements, representations and procedures contained in an application dated March 28, 1983 and letters dated April 15, 1983, August 14, 1986 and September 26, 1986.

1. Item 1 of the "Nuclear Radiation Gauging Device" procedure, included with the April 15, 1983 letter, requires that the nuclear gauge be locked-out prior to work being conducted inside a vessel.

Contrary to the above, on July 14-16, 1987, approximately 27 individuals worked inside and on Acid Storage Drum No. PV-2504, and four nuclear gauges, each containing approximately 20 millicuries of cesium-137, had not been locked-out prior to the work being conducted.

2. Item 3 of the "Nuclear Radiation Gauging Device" procedure, included with the April 15, 1983 letter, requires that a radiation survey be conducted prior to entering a vessel bearing a nuclear gauge.

Contrary to the above, on July 14-16, 1987, approximately 27 individuals entered or worked on a vessel, Acid Storage Drum No. PV-2504, without a radiation survey first being conducted.

3. Item 5 of the "Nuclear Radiation Gauging Device" procedure, included with the April 15, 1983 letter, requires that whenever nuclear gauges are removed from a vessel where they have been installed, the gauges should be transferred immediately to lead shielded containers.

Contrary to the above, on July 16, 1987, four nuclear gauges, each containing approximately 20 millicuries of cesium-137, were removed from Acid Storage Drum No. PV-2504, and as of July 20, 1987, these gauges, whose sources were exposed and not in the shielded position, had not been placed in lead shielded storage containers.

- D. 10 CFR 20.203(b) requires that each radiation area be conspicuously posted with a sign bearing the radiation caution symbol and the words, "Caution (or Danger) - Radiation Area."

Contrary to the above, on July 14-16, 1987, a radiation area existed on the inside of Acid Storage Drum No. PV-2504, and the access points to the radiation area were not posted with the required caution sign.

- F. 10 CFR 20.203(f) requires that each container of licensed radioactive material bear a clearly visible label identifying the radioactive contents.

Contrary to the above, on July 20, 1987, four Ohmart nuclear gauges, each containing 20 millicuries of cesium-137, a licensed radioactive material, did not have a clearly visible label identifying the radioactive contents. The labels had been partially obliterated by paint and/or covered with tape.

- G. 10 CFR 20.405 (a)(1)(v) requires that each licensee make a report within 30 days of its occurrence, of levels of radiation (whether or not involving excessive exposure of an individual) in an unrestricted area in excess of ten times of any applicable limit set forth in 10 CFR 20.

Contrary to the above, on January 19, 1983, an incident occurred in which an individual, who was not a radiation worker, entered an unrestricted area (the Surge Hopper on the Platformer Unit) for approximately 30 minutes, and the individual received a radiation exposure which was estimated by the licensee to be approximately 84 millirem. The level of radiation that existed in the area was approximately 160 millirem per hour, which is greater than ten times the limit of two millirem in an hour for an unrestricted area, as specified in 10 CFR 20.105 (b)(1), and as of July 22, 1987, the licensee had not filed a written report of the occurrence with the NRC.

These violations have been categorized in the aggregate as a Severity Level III problem (Supplement IV).

Cumulative Civil Penalty - \$500 (assessed equally among the violations).

Pursuant to the provisions of 10 CFR 2.201, BP Oil, Inc. (Licensee) is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, within 30 days of the date of this Notice. The response should be clearly marked as a "Reply to a Notice of Violation" and must include for each alleged violation: (1) admission or denial of the alleged violation, (2) the reasons for the violation if admitted, (3) the corrective steps that have been taken and the results achieved, (4) the corrective steps that will be taken to avoid further violations, and (5) the date when full compliance will be achieved. If an adequate reply is not received within the time specified in this Notice, an order may be issued to show cause why the license should not be modified, suspended, or revoked or why such other action as may be proper should not be taken. Consideration may be given to extending the response time for good cause shown. Under the authority of Section 182 of the Act, 42 U.S.C. 2232, this response shall be submitted under oath or affirmation.

Within the same time as provided for the response required above under 10 CFR 2.201, the Licensee may pay the civil penalty by letter to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, with a check, draft, or money order payable to the Treasurer of the United States in the amount of the civil penalty proposed above, or the cumulative amount of the civil penalties if more than one civil penalty is proposed, or may protest imposition of the civil penalty in whole or in part by a written answer addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission. Should the Licensee fail to answer within the time specified, an order imposing the civil penalty will be issued. Should the Licensee elect to file an answer



in accordance with 10 CFR 2.205 protesting the civil penalty, in whole or in part, such answer should be clearly marked as an "Answer to a Notice of Violation" and may: (1) deny the violations listed in this Notice in whole or in part, (2) demonstrate extenuating circumstances, (3) show error in this Notice, or (4) show other reasons why the penalty should not be imposed. In addition to protesting the civil penalty, such answer may request remission or mitigation of the penalty.

In requesting mitigation of the proposed penalty, the five factors addressed in Section V.B of 10 CFR Part 2, Appendix C (1987), should be addressed. Any written answer in accordance with 10 CFR 2.205 should be set forth separately from the statement or explanation in reply pursuant to 10 CFR 2.201, but may incorporate parts of the 10 CFR 2.201 reply by specific reference (e.g. citing page and paragraph numbers) to avoid repetition. The attention of the Licensee is directed to the other provisions of 10 CFR 2.205, regarding the procedure for imposing a civil penalty.

Upon failure to pay any civil penalty due which subsequently has been determined in accordance with the applicable provisions of 10 CFR 2.205, this matter may be referred to the Attorney General, and the penalty, unless compromised, remitted, or mitigated, may be collected by civil action pursuant to Section 234c of the Act, 42 U.S.C. 2282c.

The responses to the Director, Office of Enforcement, noted above (Reply to a Notice of Violation, letter with payment of civil penalty, and Answer to a Notice of Violation) should be addressed to: Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555 with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region I, 631 Park Avenue, King of Prussia, Pennsylvania 19406.

FOR THE NUCLEAR REGULATORY COMMISSION

William T. Russell  
Regional Administrator

Dated at King of Prussia, Pennsylvania,  
this        day of September 1987