



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SEP 23 1987

Docket Nos. 30-05900, 30-05901, 30-06392  
License Nos. 35-00502-02, 35-00502-03, 42-01068-07  
EA 87-35

Halliburton Company  
ATTN: Alan A. Baker, President,  
Halliburton Services Division  
Post Office Drawer 1431  
Duncan, Oklahoma 73536

Gentlemen:

SUBJECT: ORDER MODIFYING LICENSE AND NOTICE OF VIOLATION  
AND PROPOSED IMPOSITION OF CIVIL PENALTY (NRC INSPECTION  
REPORT NOS. 30-05900/86-02 AND 30-20094/86-01)

This refers to the special, unannounced inspection conducted December 8-12, 1986, at Halliburton facilities in Duncan, Oklahoma; Pauls Valley, Oklahoma; and Oklahoma City, Oklahoma. Violations identified during the inspection by Mr. L. T. Ricketson were discussed with you and members of your staff at the conclusion of the inspection and at the enforcement conferences held in the Region IV office on January 26 and May 27, 1987.

The apparent violations occurred during the period of December 1984 to December 1986 and involved operations at field camps and at your waste handling area. They include unauthorized use of byproduct material, failure to calibrate survey instruments, failure to properly instruct individuals involved in operations using licensed materials, failure to maintain materials accountability records, failure to maintain records of survey results, and failure to post documents and notices. These violations are of significant concern to the NRC because they collectively demonstrate a breakdown in management oversight and control of your radiation protection program. They also demonstrate the need to implement a thorough internal auditing program with management review.

To emphasize the importance of maintaining adequate management oversight and control of the radiation safety program, I am issuing the enclosed Notice of Violation and Proposed Imposition of Civil Penalty (Notice) in the amount of One Thousand Dollars (\$1000) 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 under the licenses described in the enclosed Notice have been categorized in the aggregate as a Severity Level III problem. The base value of a civil penalty for a Severity Level III problem or violation is \$500. The escalation and mitigation factors in the Enforcement Policy were considered and the base civil penalty amount has been increased by

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100 percent because: (1) the corrective actions taken indicate minimal licensee initiative and a lack of management involvement, (2) some of the violations existed for extensive time periods, and (3) some of the violations involve multiple occurrences.

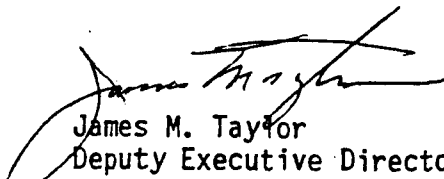
In addition to the civil penalty, further remedial action is needed to ensure that Halliburton Company improves management oversight and control over licensed operations. The NRC recognizes that the licensee is taking actions in this area and that a July 1, 1987 Confirmatory Action Letter has been issued addressing these actions. However, the NRC has determined that the completed and proposed corrective actions do not extend far enough to ensure thorough management involvement in the day-to-day operations of licensed activities. Accordingly, the NRC is issuing the enclosed Order Modifying Licenses at this time, which requires that the licensee implement a plan for performing internal auditing and corporate management notification of audit results.

You are required to respond to this letter and should follow the instructions specified in the enclosed Order and Notice when preparing your response. In your response to the Notice, you should document the specific actions taken and any additional actions you plan to prevent recurrence. After reviewing your response to the Notice, including your proposed corrective actions, the NRC will determine whether further NRC 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 its enclosures will be placed in the NRC 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,



James M. Taylor  
Deputy Executive Director  
for Regional Operations

Enclosures:

1. Order Modifying License
2. Notice of Violation and  
Proposed Imposition of Civil Penalty

cc: Oklahoma Radiation Control Program Director

UNITED STATES  
NUCLEAR REGULATORY COMMISSION

In the matter of	)	Docket Nos.	30-05900
HALLIBURTON COMPANY	)		30-05901
(Hallibuton Services Division)	)		30-06392
Post Office Drawer 1431	)	License Nos.	35-00502-02
Duncan, Oklahoma 73536	)		35-00502-03
	)		42-01068-07
	)	EA 87-35	

ORDER MODIFYING LICENSES

I

Halliburton Company (the Licensee) is the holder of several byproduct material licenses. License No. 35-00502-02 authorizes the Licensee to possess and use byproduct material for the purpose of performing tracer studies in oil and gas wells. Amendment No. 25 to the license was issued December 18, 1986. The license expires on March 31, 1991. License No. 35-00502-03 authorizes the Licensee to possess and use byproduct material for the purposes of research and development and the manufacture of tracer materials and gauging equipment used in oil field operations. Amendment No. 55 to the license was issued July 7, 1987. The license expires on March 31, 1991. License No. 42-01068-07 authorizes the Licensee to possess and use byproduct material for the purpose of performing tracer studies and well logging in oil and gas wells. Amendment No. 42 to the license was issued August 31, 1986. The license expires on August 31, 1989.

II.

On December 8-12, 1986, the NRC conducted a special inspection to review the circumstances surrounding alleged activities being performed under License No. 35-00502-03 and 35-00502-05. Several apparent violations were identified during the inspection. One of the violations was of particular concern because it involved activities being performed without NRC authorization. Specifically,

Halliburton Industrial Services, Inc. was authorized under License No. 35-00502-05 to perform salvage and decontamination activities of spent fuel racks at its facility in Duncan, Oklahoma. On April 11, 1985, while disposal activities were taking place, Halliburton Industrial Services, Inc. was dissolved as a separate corporation. On that same day, Halliburton Company took possession of the facility. When the salvage and decontamination activities proved economically unfeasible, the spent fuel racks were cut into small pieces by Halliburton Company without NRC authorization and disposed of at an authorized disposal site. Because Halliburton Company was not an authorized recipient of the byproduct material, such possession violated NRC requirements. Further, contrary to NRC requirements, Halliburton Company continued to conduct decontamination activities at the Duncan, Oklahoma site from April 11, 1985 to December 19, 1985. At no time prior to the inspection did Halliburton Industrial Services, Inc. or Halliburton Company notify the NRC of these occurrences.

These circumstances, when viewed together with the other violations, demonstrated that Halliburton Company management failed to exercise adequate oversight and control of its radiation safety program. The NRC communicated its concerns to the Licensee during an enforcement conference held on January 26, 1987. Pursuant to NRC request, the Licensee committed, by letter dated April 16, 1987, not to conduct activities which had been authorized under License No. 35-00502-05. Further, in a Confirmatory Action Letter dated May 1, 1987, the NRC documented the Licensee's commitment to request an amendment to License No. 35-00502-03 which would authorize the decontamination activities previously authorized under License No. 35-00502-05.

Another enforcement conference was held on May 27, 1987 to discuss with the Licensee the need to develop a comprehensive audit program. The NRC determined that an audit program was necessary because of the multiple licenses held by the Licensee and because the violations identified during the inspection indicated the need for greater management involvement in the radiation safety program. Consequently, on June 9, 1987, Halliburton Company submitted a letter describing its proposed audit program. The NRC documented the Licensee's commitment in a Confirmatory Action Letter dated July 1, 1987.

### III.

After consideration of the facts, the NRC has concluded that there was a significant breakdown in management oversight and control of operations involving licensed material and has determined that an improved program of internal auditing and corporate management notification is needed. Further, the NRC has determined that the Licensee's completed and proposed corrective actions do not extend far enough to ensure thorough management involvement in the day-to-day operations of its licensed activities. Therefore, an Order describing in greater detail the requirements of the corporate audit program is necessary.

### IV.

In view of the foregoing and pursuant to Sections 81, 161b, 161f, and 161o of the Atomic Energy Act of 1954, as amended (Act), and the Commission's regulations 10 CFR 2.204, and Parts 30 and 39, IT IS HEREBY ORDERED THAT:

A. The Licensee shall submit within 30 days of the date of this Order a description of a corporate audit program for NRC review and approval. NRC approval will constitute incorporation of the corporate audit program into the following licenses: (1) No. 35-00502-02, (2) No. 35-00502-03, and (3) No. 42-01068-07. As a minimum, the audit program shall consist of the elements described below.

1. Comprehensive audits of the handling, use, storage and disposition of licensed materials shall be conducted at intervals not to exceed 3 months by either the Radiation Safety Officer (RSO) or Assistant Radiation Safety Officer (ARSO) for their licenses for which they are responsible. Audits shall be conducted at each active field station or service center. (Active sites are those at which radioactive material has been possessed, used, or stored within the previous 6 months.) Any deficiencies noted by the audit shall be promptly corrected. The audits shall be documented in a report within 30 days of each audit and the report shall be submitted to the Manager of the Government Regulations Department, Hallibuton Services. A determination shall be made whether the deficiency was an isolated event or one that indicates a potential systematic failure in which case all field stations and service centers shall be notified.

2. Additional unannounced audits shall be performed if prior corrective actions are not implemented or if the corrective actions were not effective.
  3. As a minimum, a review of the audit findings shall be conducted for each licensed activity by the Manager of Government Regulations Department, Halliburton Services, at intervals not to exceed six months and the review shall be documented in a report. In addition, the Manager of Government Regulations Department, or an NRC-approved alternate, shall conduct periodic audits at selected active field stations or service centers.
- B. Within 30 days of the audit review required by Item A.3 above, copies of the completed audit report shall be provided to the President, Halliburton Services, for his review.
- C. The President, Halliburton Services, shall be the responsible Licensee representative to ensure that all corrective actions are properly implemented and incorporated into the licensee's program.
- D. Records of the reviews and audits identified above shall be maintained for inspection by the Commission for a period of 3 years.

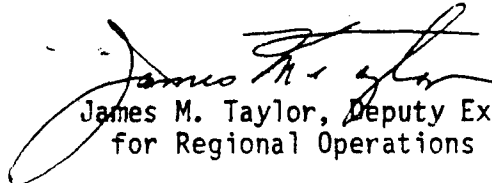
The Regional Administrator, Region IV, or his designee may relax or rescind any of the above provisions for good cause.

V.

The Licensee or any other person adversely affected by this Order may within 30 days of the date of this Order request a hearing. A request for a hearing shall be addressed to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. A copy of the hearing request shall also be sent to the Assistant General Counsel for Enforcement, Office of General Counsel, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, and to the Regional Administrator, Region IV, 611 Ryan Plaza, Suite 1000, Arlington, Texas 76011. If a person other than the Licensee requests a hearing, that person shall set forth with particularity the manner in which the petitioner's interest is adversely affected by this Order and should address the criteria set forth in 10 CFR 2.714(d).

If a hearing is requested, the Commission will issue an Order designating the time and place of the hearing. If the Licensee fails to request a hearing within 30 days of the date of this Order, the provisions of this order shall be effective without further proceedings.

In the event the Licensee or any other person requests a hearing as provided above, the issue to be considered at such hearing shall be whether this Order should be sustained.

  
James M. Taylor, Deputy Executive Director  
for Regional Operations

Dated at Bethesda, Maryland,  
this 23 day of September 1987.



NOTICE OF VIOLATION  
AND  
PROPOSED IMPOSITION OF CIVIL PENALTY

Halliburton Company  
(Halliburton Services Division)  
Duncan, Oklahoma

Docket Nos. 30-05900  
30-05901  
30-06392  
License Nos. 35-00502-02  
35-00502-03  
42-01068-07

EA 87-35

During an NRC inspection conducted on December 8-12, 1986, 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 1954, as amended ("Act"), 42 U.S.C. 2282, PL 96-295, and 10 CFR 2.205. The particular violations and associated civil penalty are set forth below:

- A. Pursuant to 10 CFR 30.3, no person shall possess or use byproduct material except as authorized by specific or general license issued pursuant to 10 CFR Chapter I.

Contrary to the above, Halliburton Company took possession of spent fuel racks contaminated with byproduct material on April 11, 1985 and was not authorized by its license to possess this material. In addition, Halliburton Company used the byproduct material without a license in that it conducted operations to decontaminate reactor components contaminated with the byproduct material during the period of April 11, 1985, to December 19, 1985. Furthermore, when the operations to decontaminate the reactor components proved economically unfeasible, without NRC authorization, Halliburton Company cut the spent fuel racks into small pieces and disposed of them at an authorized disposal site.

- B. License Condition 13 of License No. 35-00502-02 requires that licensed activities be conducted in accordance with statements, representations, and procedures contained in the license application dated April 11, 1984, and certain subsequent correspondence.

Part 11 of the license application requires that the licensee calibrate survey instruments at intervals not to exceed six months.

Contrary to the above, survey instrument number 20872 assigned to the Oklahoma City, Oklahoma, camp and used on August 18, 1986; September 16, 1986; and November 26, 1986, had not been calibrated within the six month period prior to use.

- C. 10 CFR 19.12 requires that all individuals working in a restricted area be instructed in the precautions and procedures to minimize exposure to radiation and radioactive materials, and in the applicable provisions of Commission's regulations and licenses for the protection of personnel from such exposures.

Contrary to the above, an individual working in the licensee's Rayfrac facility had not been trained concerning radiation safety and the applicable regulatory requirements.

- D. 10 CFR 30.51(a) requires that each licensee keep records showing the receipt, transfer, and disposal of licensed material.

Contrary to the above, records of receipt, transfer, and disposal of licensed material were not available for operations involving licensed material conducted at the Oklahoma City, Oklahoma camp prior to April 7, 1986.

- E. 10 CFR 20.401(b) requires that each licensee maintain records showing the results of surveys required by 10 CFR 20.201(b).

Contrary to the above, records of results of surveys performed at job sites and storage areas were not available for operations conducted from the Oklahoma City, Oklahoma camp prior to April 6, 1986.

- F. 10 CFR 19.11(a) and (b) require that current copies of 10 CFR Part 19, 10 CFR Part 20, the license, license conditions, documents incorporated into the license, license amendments, and operating procedures be posted or that a notice be posted describing these documents and where they may be examined.

Contrary to the above, on the days of the NRC inspection, neither the documents nor the notice were posted at the Pauls Valley, Oklahoma, camp; the Oklahoma City, Oklahoma, camp; or the Rayfrac facility in Duncan, Oklahoma.

- G. 10 CFR 19.11(c) requires that Form NRC-3, "Notice to Employees," be posted for viewing by individuals engaged in licensed activities.

Contrary to the above, on the days of the NRC inspection, Form NRC-3 was not posted at the Pauls Valley, Oklahoma camp; the Oklahoma City, Oklahoma, camp; or the Rayfrac facility in Duncan, Oklahoma.

Collectively, these violations have been categorized as a Severity Level III problem (Supplements IV and VI).

Cumulative Civil Penalty - \$1000 assessed equally among the violations.

Pursuant to the provisions of 10 CFR 2.201, Halliburton Company is hereby required to submit a written statement or explanation to the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, with a copy to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 1000, Arlington, Texas 76011, within 30 days of the date of this Notice. This reply should be clearly marked as a "Reply to a Notice of Violation" and should 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 which 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.

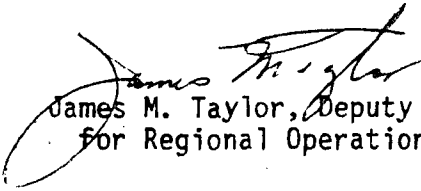
Within the same time as provided for the response required above under 10 CFR 2.201, Halliburton Company may pay the civil penalty by letter addressed to the Director, Office of Enforcement, with a check, draft, or money order payable to the Treasurer of the United States in the cumulative amount of One Thousand Dollars (\$1000) 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 Halliburton Company fail to answer within the time specified, an order imposing the civil penalty will be issued. Should Halliburton Company 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 in whole or in part, 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 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. Halliburton Company's attention 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 has been subsequently 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. 2282.

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) be addressed to: Director, Office of Enforcement, U. S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D. C. 20555 with a copy to the Regional Administrator, U. S. Nuclear Regulatory Commission, Region IV.

FOR THE NUCLEAR REGULATORY COMMISSION



James M. Taylor, Deputy Executive Director  
for Regional Operations

Dated at Bethesda, Maryland,  
this 23 day of September 1987.