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MASTER
ANALYSIS AND COMPARISON
OF
FIVE CONTRACTOR SAFETY AND HEALTH MANUALS
(EG&G, SRC II, ORNL, ASHLAND, AND MLGW)

MARCH 1981

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1317 VINCENT PLACE McLEAN, VIRGINIA 22101 (703) 734-9093

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ANALYSIS AND COMPARISON
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by

Colleen Crowder

and

Tim Hurley

March 1981

Prepared by

A. F. Meyer and Associates, Inc.

1317 Vincent Place

McLean, Virginia 22101

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Abstract

This report analyzes five safety and health contractor manuals against the requirements of the FE OSH Manual (FE 5480.1) and provides a breakdown in chart form of how the manuals compare to each other. It is pointed out that the manuals are inadequate, but that site visits will be necessary to determine the actual comprehensiveness of the facilities' safety and health programs.

Analysis of the safety and health manuals of the SRC-II Demonstration Project, the Oak Ridge National Lab (ORNL) (program for H-Coal Pilot Plant), Ashland Synthetic Fuels, EG&G, and Memphis Light, Gas, Gas, and Water Division (MLGW) (for an Industrial Fuel Gas Demonstration Plant) revealed gross inadequacies in all five of these written plans when compared against requirements outlined in the FE OSH Manual ETF 5480.1. A major reason for these deficiencies is that the plans generally describe policies as opposed to programs. That is, the plans tell what is to be done rather than how it is to be accomplished. For example, the SRC-II Plan states: "This plan describes the generalized content and administration thereof rather than the details that will be used to successfully implement the programs" (page 1). Evidently, many details of implementation were developed after the writing of the plans. ORNL's plan states: "A detailed program plan for plant area and personnel monitoring . . . will be discussed and developed in cooperation with ASFI."

A further problem in evaluating these plans as written is that several of them apparently contain their more detailed procedures in separate documents, which were sometimes not included. For example, ORNL's plan cites a separate document, the Comprehensive Health and Safety Plan for the H-Coal Pilot Plant for a description of requirements relating to personal hygiene procedures (page 6-36). Additionally, both ORNL and Ashland placed parts of their implementation plans in Appendices. This leaves some doubt as to what other programs/specific procedures may exist but were not included as parts of the manuals. To illustrate, one of the greatest deficiencies in all the manuals is lack of written requirements addressing recordkeeping. It is likely that such requirements in fact exist and are properly implemented, but are merely not addressed as part of the written safety and health programs. Note on the attached chart (under Section I) the requirement regarding copies of reports, etc., to be forwarded to the Systems Engineering Director, FE-OPTA. Only EEG addresses this requirement at all, and even that plan is not entirely adequate in this respect. While it is not likely that

such a critical requirement has been ignored by these contractors, it is entirely possible that this requirement (and possibly others) is in some other administrative document. Failures, in many cases, may be simply failures to include actual requirements in the written health and safety plan, rather than failures at actual implementation.

For these reasons, it is crucial that all health and safety programs under consideration be judged not only on the basis of their written plans but also by actual site visits. The importance of this was underscored by AFMA's recent site visit to EG&G's Morgantown operation, which revealed an excellent industrial hygiene program, even though the facility's written plan in this area appears less than adequate.

As stated above, the primary deficiencies of the manuals were in the lack of plans of action as opposed to broadly based goals. As can be seen in the attached Summary Chart, the best plan as far as avoiding this deficiency is that of EG&G. Out of a possible total of 108 "points" (assigned for adequacy of attention to identified major requirements of 5480.1), only EG&G got more than slightly above 50 percent of this total. In contrast, ORNL's plan, at the bottom of the hierarchy, attained its low position not because what it addresses is done poorly, but because its primary orientation is toward long term health effects research. Requirements for personal protection, recordkeeping, and emergency plans are inadequate as set forth, and safety requirements are almost totally ignored in this document.

A major common deficiency in all five of the manuals is insufficient or nonexistent recordkeeping requirements. Of special concern in this area is the need to address employees' rights to privacy regarding maintenance and transfer of records, and employees' rights of access to these records. Other common deficiencies existed in the area of clinical occupational medicine (see Section II, Chart 1).

The overall inadequacy of the five manuals is shown by the fact that 200 out of the 265 cells on Chart 1 are occupied by either a "--" or a " ", indicating nonexistent or inadequate requirements.

CHART I

REQUIREMENTS OF 5480.1 FOR CONTRACTOR'S OSH PROGRAMS

- Nonexistent
- ✓ Inadequately Addressed
- ⊕ Adequately Addressed

I. Policy and Program Organization.

Written policy statement of responsibilities for OSH (clearly stating authorities and responsibilities for different areas of OSH program):

- o Policy statements and program plans must be submitted.
- o Clinical medicine, industrial hygiene, and safety should have a single director.
- o Requirements for Safety and Health Councils.
- o Evaluations and Inspections:
 - o Copies of reports, citations, and corrective action plans to be forwarded to Systems Engineering Director, FEOPTA.
- o Poster, OSH Protection for Employees should be displayed. Also DOE Form EV-102A.

	EG+G	SRC II	ORNL	ASHLAND	MLW
✓	✓	✓	⊕	⊕	
✓	—	—	—		✓
—	⊕	—	✓	—	
✓	✓	✓	—	—	
✓	✓	✓	✓	✓	✓
✓	—	—	—	—	—
—	—	—	—	—	—

I. Policy and Program Organization (continued).

- o Requirements for central reference files.
- o Maintenance and disposition of records (length of retention, transfer, etc.).

EG & G	SRC II	ORNL	RSHLAND	MLGW
-	✓	-	-	✓
✓	✓	-	✓	✓

II. Clinical Occupational Medicine.

- o Responsibilities for Director.
- o Qualifications for physicians.
- o Organization and qualifications of nurses.
- o Channels of responsibility (director -- nurse).
- o Orientation in facility hazards (nurses).
- o Written nursing procedures, orders.
- o Use of environmental survey data in diagnosis.
- o Coordination and communication with outside support.
- o Physical Exam Program.
 - o Preplacement.
 - o Periodic.
 - o Termination.
 - o Special.
- o Requirements regarding privacy rights (records).
- o Following absence due to injury or illness.
- o Summary records of examinations.
- o Sharing Federal medical facilities.
- o Forms and records relating to worker's compensation.

+	-	+	✓	-
+	-	-	-	-
✓	-	-	-	-
+	-	-	✓	✓
+	-	-	-	-
✓	-	-	✓	-
-	-	✓	-	-
✓	✓	-	✓	-
+	+	+	+	+
+	+	+	+	✓
+	+	-	+	+
+	+	✓	+	-
+	✓	-	✓	-
✓	✓	✓	✓	+
✓	✓	✓	✓	✓
-	✓	-	-	-
-	-	-	-	-

III. Industrial Hygiene.

- o Staffing guidelines.
- o Qualifications.
- o Environmental surveillance.
- o Exposure measurement.
- o Industrial hygiene surveys, types, frequency of.
- o Exposure records, distribution and maintenance of other information.
- o Occupational Environmental Sanitation.
 - o Personal cleanliness.
 - o Food Service.
 - o Water sampling.
- o Radiation Protection.

E&G-Q	SRC II	ORNL	ASHLAND	MLGW
+	-	-	✓	-
+	-	-	-	✓
✓	✓	✓	✓	✓
✓	✓	✓	✓	✓
✓	-	-	+	✓
✓	✓	✓	✓	-

IV. Safety.

- o Staffing.
- o Inspections.
- o Fire/accident prevention.
- o Motor vehicle safety.

✓	+	✓	✓	+
-	-	-	-	-
-	-	✓	-	-
+	✓	-	✓	✓

V. Procedures Common to Industrial Hygiene and Safety.

- o Job Hazard Analysis.
- o Risk Assessment Code for hazard analysis reporting.

+	-	-	-	✓
✓	-	-	-	-

V. Procedures Common to Industrial Hygiene and Safety

(continued).

- o Hazards Index.
- o Engineering controls.
- o Personal Protective equipment.
- o Signs.
- o Labels/tags/color coding system.
- o Local manuals.
- o Work permit system.

EG & G	SRC II	ORNL	ASHLAND	MCGRAW
✓	-	-	-	-
✓	+	✓	✓	✓
+	✓	✓	✓	+
+	✓	✓	✓	✓
+	✓	-	✓	✓
✓	✓	-	-	✓
+	+	✓	+	+

VI. Education and Training.

- o Responsibilities.
- o Information on nonoccupational diseases.
- o Use of:
 - o Posters/billboards.
 - o Contests.
 - o Audiovisual aids.
- o Hearing and vision conservation.
- o Personal hygiene.

+	-	-	-	+
-	+	-	-	-
✓	+	-	-	-
-	+	-	-	-
-	-	-	-	-
✓	✓	-	✓	✓
✓	✓	✓	✓	✓

VII. Carcinogens.

- o Shower facilities.
- o Clean change rooms.
- o Food consumption.
- o Ventilation systems.
- o Emergency procedures.

-	+	-	✓	✓
✓	+	-	+	✓
-	-	✓	✓	✓
-	-	✓	-	-
✓	✓	✓	✓	✓

VII. Carcinogens (continued).

- o Decontamination operations.
- o Laboratory operations.

EG & G	SRC	H	ORNL	ASHLAND	M LAW
+	-	✓	✓	-	
-	✓	-	-	-	

VIII. Reporting and Investigations.

- o Reports of accidents.
- o Investigations.

+	-	-	✓	+
+	✓	-	✓	+

IX. Statistics and Epidemiology.

- o Statistical analysis of clinical, accident, etc., data.
- o Analysis of cost data (recommended).

✓	+	-	✓	-
-	-	-	-	✓

X. Facilities and Equipment.

- o Installation and use of X-ray equipment.
- o Written laboratory procedures.

-	-	-	✓	-
+	-	-	✓	-

XII. Emergency Planning, Preparedness and Response (EPPR).

- o General responsibilities.
- o Medical emergency responsibilities.
- o Spills, clean-up, decontamination.

✓	✓	✓	✓	✓
+	✓	✓	-	-
-	✓	✓	-	-

CHART 2

Summary Chart*

*If "+" = 2, "✓" = 1, and "—" = 0

<u>Facility</u>	Number of		
	—	✓	+
EG&G	18	29	26
SRC II	31	28	14
ASHLAND	28	34	10
MLGW	34	26	12
ORNL	49	24	3

EGG = 81

SRC = 56

ASHLAND = 54

MLGW = 50

ORNL = 30

Combined Totals

All "—" Cells = 159

All "✓" Cells = 141

All "+" Cells = 65

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