[redacted]

CORPORATE AND DIVISION STAFF DEPARTMENT REVIEWS

INDUSTRIAL HYGIENE AND TOXICOLOGY

Homer M. Cole

TX TINER
RMC0023373

FUNCTION OUTLINE

- **APPROACH**

- **CORPORATE INDUSTRIAL HYGIENE AND TOXICOLOGY**

  1. **principles**
  2. **charter**
  3. **organization**
  4. **budget**

- **BENCHMARKING**

- **REGULATIONS**

- **CLOSING**

CORPORATE INDUSTRIAL HYGIENE AND TOXICOLOGY

FUNCTION:

Establish, implement and maintain programs to identify and control employee exposures to chemical and physical hazards in the workplace.

Evaluate Reynolds' products for possible hazards; develop Material Safety Data Sheets and product labels for plants/divisions/customers.

Advise line/staff personnel on applicable laws, codes, and other regulations concerning occupational health exposures.

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APPROACH

- Operate as a team with plants and divisions to solve problems - staffed for crisis management
- Centralized approach with core of experts - duplication of experts at plants would be prohibitive
- Hands-on approach - employee exposure monitoring, training, and auditing
- Focus on customer needs
    - Plants/Divisions - operations problems, union and employee complaints
    - Reynolds' customers - MSDSs, trace metals, CA Proposition 65
    - Community - CA Proposition 65
- Establish priorities - firefighting
- A more pro-active approach is needed

HOMER M. COLE - DIRECTOR, INDUSTRIAL HYGIENE AND TOXICOLOGY

Graduate of University of North Carolina, Master's Degree in Industrial Hygiene; board certified in industrial hygiene in US and Canada; faculty, Medical College of Virginia.

RESPONSIBILITIES:

60% 1. Directs industrial hygiene function, establishes, implements and maintains programs to identify and control employee exposure to chemical, physical and biological hazards, including:

   a. trace metals in packaging products
   b. aluminum migration in food and beverages
   c. aluminum neurotoxicity
   d. electromagnetic fields

20% 2. Establishes industrial hygiene policy

   a. Advises line/staff personnel on applicable laws, codes and other regulations concerning occupational exposure in RMC facilities, including: OSHA/MSHA, California Proposition 65, CONEG,

10% 3. Presents expert testimony in worker's compensation claims, product liability and third party litigation

10% 4. Conducts compliance audits and due diligence evaluations for RMC acquisitions and divestitures

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RONALD E. BENTON - MANAGER, INDUSTRIAL HYGIENE FIELD OPERATIONS AND TECHNICAL SERVICES

Graduate of University of North Carolina, Master's Degree in Environmental Sciences and Engineering; board certified in Industrial Hygiene in the US and Canada; faculty appointment, MCV Medical School.

RESPONSIBILITIES:

60% 1. Manages industrial hygiene field activities of staff, division/plant personnel, and consultants. Assists Director of Industrial Hygiene pursuant to governmental regulations (OSHA, MSHA, CONEG, California Proposition 65)

2. Conducts industrial hygiene compliance audits and due diligence evaluations for RMC acquisitions and divestitures.

3. Analyzes data, writes technical reports and provides recommendations

4. Develops and conducts training programs.

10% 5. Develops and writes Material Safety Data Sheets and product labels on Reynolds' products, as required by OSHA Hazard Communication Standard and Canadian WHMIS.

6. Advises Reynolds' plants/divisions and customers

20% 7. Manages and audits RMc Asbestos Control Program for plants and subsidiaries, including $2-3 million in asbestos removal/repair in RMC facilities each year.

10% 8. Presents expert testimony in negotiations, compliance programs/settlement agreements with OSHA/MSHA

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SUSAN M. GIDLEY - MANAGER, INDUSTRIAL HYGIENE PROGRAMS

Graduate of Central Missouri State University - Master's in Industrial Hygiene; Registered Nurse; board certified Industrial Hygienist in Training; certified in Hearing Conservation (CAOCH).

RESPONSIBILITIES:

50% 1. Administers Reynolds' Hearing Conservation Program
   a. Determines employee exposure to noise
   b. Oversees employee audiometric testing
   c. Reviews augiograms and determines Standard Threshold Shifts (loss of hearing)
   d. Develops and conducts training programs
   e. Specifies hearing protection
   f. Notifies employees of hearing loss
   g. Audits performance of Hearing Conservation Program
   h. Works with plants to solve problems.

20% 2. Oversees Reynolds' Hazard Communication Program
   a. Evaluates Material Safety Data sheets and product labels
   b. Provides quarterly reports to plants on hazardous chemicals
   c. Approves products for use (for both OSHA and EPA)
   d. Audits compliance performance.

30% 3. Conducts industrial hygiene field studies
   a. Audits compliance with government regulations
   b. Evaluates technical data, writes reports and recommends solutions
   c. Develops and conducts training programs

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STACY L. SELPH - EASTERN REGION INDUSTRIAL HYGIENIST

Graduate of Medical College of Virginia, Master's Degree in Public Health

RESPONSIBILITIES:

80% 1. Conducts industrial hygiene field studies
2. Audits plant compliance with OSHA/MSHA standards
3. Evaluates data, writes technical reports and provides recommendations regarding employee exposure to hazardous chemicals
4. Conducts employee training programs

20% 5. Oversees Reynolds' Emergency Response Program
a. Reviews and comments on plant procedures
b. Audits performance

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WILLIAM J. SHANNON - MANAGER, INDUSTRIAL HYGIENE AUTOMATION

BS Degree in Management Sciences from Virginia Polytechnic Institute and State University. Currently pursuing MBA Degree from VCU.

RESPONSIBILITIES:

40% 1. Manages industrial hygiene database for RMC Hazard Communication Program, including:
   a. 27,000 Material Safety Data Sheets, which are required by OSHA Hazard Communication Standard.
   b. development of annual SARA reports, as required by EPA

30% 2. Manages RMC Hearing Conservation database. In 1991, 18,000 employee audiograms were added to database. In 1992, 9,600 have been added. Database is used to audit plant audiometric testing and Hearing Conservation Program.

20% 3. Develops and implements software programs to assist in the analysis and reporting of industrial hygiene data.

10% 4. Responds to customer inquiries concerning MSDS's and product labels relative to the OSHA Hazard Communication Standard and the Canadian WHMIS.

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UTILIZE EXPERTISE TO MINIMIZE COST OF COMPLIANCE

- Provide technical and regulatory answers for plants and divisions
- Negotiate major compliance issues
- Resolve non-compliance citations/claims
- Establish concise industrial hygiene policies and instruction
- Provide input into division/plant planning
- Capital Project review
- Protect company interest during acquisition/divestiture
- Recommend steps for Canadian compliance - WHMIS

RMC PRINCIPLES:

- To preserve the health and safety of Reynolds' employees, their families and the communities where our facilities are located
- To operate its facilities in compliance with applicable health and safety laws
- To work constructively with government agencies and our employees to provide a safe and healthful workplace
- To monitor the performance of its operations, to ensure controls are working
- To devote research and technology resources to improve the quality of life in the workplace and the quality of Reynolds' products
- To conduct educational programs to ensure that employees understand the physical and chemical hazards in the workplace.

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CHARTER

The charter as published in the COM is not up-to-date and has been amended. The following charter reflects new Industrial Hygiene responsibilities.

INDUSTRIAL HYGIENE AND TOXICOLOGY CHARTER

FUNCTION

The function of Corporate Industrial Hygiene and Toxicology is to establish, implement, and maintain programs to identify and control employee exposures in company workplaces and in company products that may cause sickness, impaired health, or significant discomfort to employees, customers, or the general public.

ORGANIZATION

The Director of Industrial Hygiene and Toxicology reports to the Director of Health and Safety and is assisted by the following staff personnel:

Technical Manager, Industrial Hygiene
Corporate Industrial Hygienist
Staff Industrial Hygienist(s)
Database Analyst
Plant Industrial Hygiene Representatives
Industrial Hygiene Laboratory/Corporate Research & Development Metallurgy Laboratory in Richmond, VA
Industrial Hygiene Laboratory/Manufacturing Technology Laboratory in Sheffield, AL

MAJOR RESPONSIBILITIES

1. **Administer Reynolds Metals Company Occupational Exposure Assessment and Control Program.** This includes (a) identification of hazardous contaminants, (b) identification of job classifications with potential for exposure to hazardous contaminants, (c) implementation of sampling strategy, (d) evaluation and follow-up, and (e) implementation of work practices and controls.

2. **Administer Reynolds Hearing Conservation Program.** This program includes (a) conducting surveys to determine employee exposure to noise levels, (b) providing employees with annual audiograms in order to identify hearing loss or a Standard Threshold Shift (STS), (c) training employees on the hazards of noise, (d) specifying approved hearing protection, and (e) assisting with development of engineering controls to reduce noise levels.

3. **Administer the Reynolds Hazard Communication Program.** This includes (a) making a hazard determination for Reynolds' products and preparing required Material Safety Data Sheets and product labels, (b) developing hazardous chemical inventories and hazard determinations for products used at all Reynolds' facilities, and (c) assisting in the development of training programs to inform employees of potential health hazards.

4. **Administer Reynolds Respiratory Protection Program.** This includes (a) implementation of a written respirator program, (b) selection of appropriate respirators based on the nature of occupational exposures, (c) instruction and training concerning the need for and proper use, care, and limitations of respirators, (d) fit testing of employees wearing air purifying, negative pressure respirators, and (e) medical surveillance of employees wearing respiratory protection.

5. **Administer Reynolds Asbestos Control Program.** This includes (a) identification of all asbestos-containing materials (ACM), (b) development of recommended procedures to limit employee exposure, and (c) selection and auditing of asbestos abatement contractors.

6. **Administer Reynolds Heat Stress Control Program.** This includes (a) distribution of appropriate training films and literature on recognition and prevention of heat-related illnesses, (b) identifying any specific job or worksite demonstrating an increased risk of heat-related illnesses and, (c) maintaining accurate statistics of all heat-related illnesses reported by plant locations.

7. **Administer Reynolds Confined Space Program.** This includes (a) identifying conditions that define "confined space entry," (b) categorizing a confined space as Class "A" or Class "B", (c) providing practices and procedures (entry permit system, atmospheric testing, use of personal protective equipment, emergency rescue procedures, etc.) to ensure safe and hazard-free work conditions, and (d) providing employees assigned to enter confined spaces training prior to entry and on an annual basis.

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8. Administer Reynolds Industrial Hygiene Audit Program. This includes auditing the following: (a) Occupational Exposure Assessment and Control Program, (b) Hearing Conservation Program, (c) Hazard Communication Program, (d) Respiratory Protection Program, (e) Asbestos Control Program, (f) Heat Stress Program, and (g) Confined Space Program.

9. Conduct industrial hygiene studies of manufacturing and laboratory operations, equipment, and processes in order to (a) assess the exposure of employees to environmental hazards, (b) evaluate the effectiveness of control systems and methods utilized for the prevention of disease, and (c) develop controls to limit exposures.

10. Evaluate and approve chemical products for use in RMC plants.

11. Advise both line and staff personnel on applicable laws, codes, and other regulations pertaining to occupational exposures and the potential impact of such laws, codes, and regulations on company operations.

12. Present expert testimony to courts of law, hearing boards, workers compensation commissions, and other regulatory agencies relating to occupational health.

13. Provide direction to the Industrial Hygiene laboratories (Corporate Research & Development Metallurgy and Manufacturing Technology) regarding the development of analytical methods used to evaluate environmental exposures that may occur with company operations.

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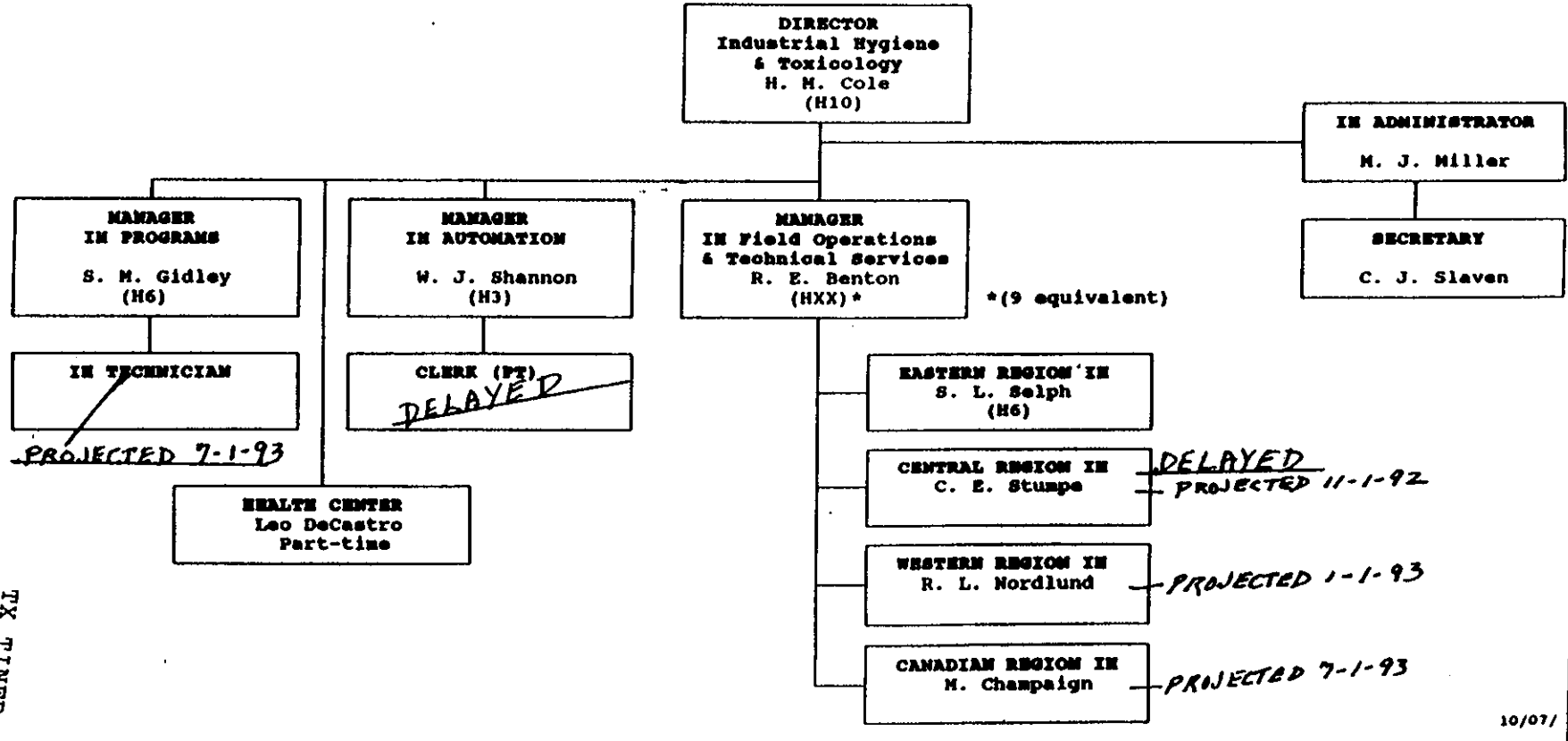
REYNOLDS METALS COMPANY
HUMAN RESOURCES DEPARTMENT
INDUSTRIAL HYGIENE AND TOXICOLOGY



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MIS/7869 BUDGET PREPARATION FORM **WORK COPY**

COST CENTER: G5318

COST CENTER NAME: PERSONNEL: INDUSTRIAL HYGIENE

EXP SUFFIX	DESCRIPTION	1993 BUDGET	1992 BUDGET	1993 INCREASE (DECREASE)	1992 PROJECTED ACTUAL
10	PAY SUPERVISION	260 112	216,543	43569	
11	PAY CLERICAL	49560	79,368	(29808)	
12	PAY OVERTIME	5700	5,700	-0-	
16	VAC PAY;MERIT	5381	5,381	-0-	
	TOTAL PAYROLLS	320 753	306,992	13761	
20	PAYROLL TAXES	26185	22,207	3978	
21	EMP.SECURITY	77066	66,197	10869	
24	POST-RETIRE BENEF		0		
	TOTAL P/R & FRI	424004	395,396	28608	
36	SUNDRY SUPPLIES	17724	15,237	2487	
43	FREIGHT	1400	1,400	-0-	
44	OFFICE SUPPLIES	4824	4,824	-0-	
46	NON PROF. SERV.	25958	17,691	8267	
50	TELE-TRANS CHGS	400	400	-0-	
	DUES AND SUBSCR	2200	2,200	-0-	
57	TRAVEL AND ENT.	49669	37,169	12500	
58	MEETINGS & CONV	2500	2,500	-0-	
69	REPAIRS & MAINT	6400	6,400	-0-	
81	DEPRECIATION	15486	15,486	-0-	
87	INSURANCE	2480	2,480	-0-	
97	REDISTRIBUTIVE	67209	59,709	7500	
	TOTAL NONPAYROLL	196250	165,496	30754	
	TOTAL	620,254	560,892	59,362	

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BENCHMARKING:

- **Earlier in 1992, RMC contacted 15 large companies regarding health (industrial hygiene-medical) and safety audits, as a result of questions raised by Reynolds' Board of Directors.**

  ALCOA
  ALCAN
  ASHLAND OIL
  PHILIP MORRIS
  CHRYSLER
  FORD
  GENERAL MOTORS
  ALUMAX
  KAISER
  GENERAL ELECTRIC
  BOEING
  ALLIED
  3M
  PREMARK INT.
  BETHLEHEM STEEL

  Industrial Hygiene programs, for the most part, were centralized, with 53% of the companies having formal audit programs. RMC senior management recognized certain deficiencies in the health and safety area and committed resources to upgrade them, depending upon economic conditions.

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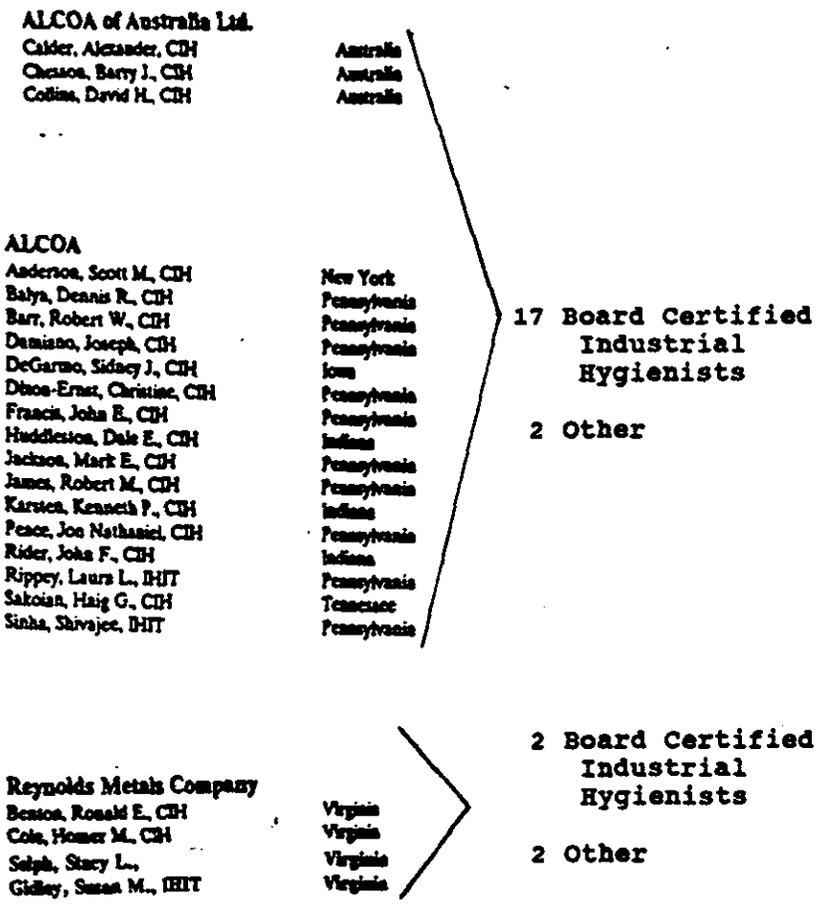
- ALCOA VS. REYNOLDS

As can be seen from the list below, ALCOA has 19 industrial hygienists, of which 90 per cent are board certified. REYNOLDS has 4 industrial hygienists, of which 2 are board certified.



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KEY FEDERAL/STATE REGULATORY INITIATIVE

- **OSHA/MSHA**

  Hazard Communication
  Hearing Conservation
  Emergency Response
  Air Contaminants
  Asbestos
  Respiratory Protection
  Laboratory Standard
  Heat Stress
  Confined Space
  Lead
  Formaldehyde

- **COALITION OF NORTHEAST GOVERNORS (CONEG)**

  Lead
  Mercury
  Cadmium
  Hexavalent Chromium

- **CALIFORNIA PROPOSITION 65**

  Cancer Hazards
  Reproductive Hazards

- **FOOD AND DRUG ADMINISTRATION (FDA)**

  Aluminum
  Alloy Elements

- **ENVIRONMENTAL PROTECTION AGENCY (EPA)**

  SARA (Community Right-To-Know)
  NESHAPS - (asbestos)

FINES AND LAWSUITS - MAJOR CONCERNS

- $600,000 - ASBESTOS - Hurricane Creek (1988)
- $20,000 - HAZARD COMMUNICATION AND HEARING CONSERVATION - Cincinnati-RASCO (1991)
- $3,000,000 Class Action - ASBESTOS - Listerhill (1992) (98 cases @ $10,000,000 per case)
- $5,000,000 - ALUMINUM NEUROTOXICITY - Reynolds Can Stock (1987)
- $5,000,000 - EMERGENCY RESPONSE - Listerhill (1992)
- LEAD - ALUMINUM CANS - CONEG (1992)
- COAL TAR PITCH - RESPIRATORY PROTECTION, ENGINEERING CONTROLS - Troutdale, $25,000,000 - (1975)
  Massena, ongoing (1992)
- HEARING CONSERVATION - CAN DIVISION - $ MILLIONS Seattle (1992)
- $200,000 - ALUMINUM TOXICITY - Alabama Reclamation (1992)
- ALUMINUM MIGRATION INTO BEVERAGES (1992)

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CORPORATE AND DIVISION STAFF DEPARTMENT REVIEWS

- **Department Head Count and Organization Chart**

Earlier this year, Reynolds contacted 15 large companies to evaluate their experience with OSHA-EPA audits, pursuant to a request from the Reynolds Board of Directors. As a result, senior management concluded that the industrial hygiene function should be reorganized and that an audit function should be added to industrial hygiene's responsibilities.

Consequently, the industrial hygiene function was divided into three areas, (1) field operations; (2) programs and auditing; and (3) automation, as reflected by the current organization chart. (Chart attached)

The recommendations presented to the Board also called for additions to the industrial hygiene staff. Susan Gidley, was changed from part-time to full-time status, on July 1, 1992, as the Manager of Industrial Hygiene Programs. The Southern Regional position was delayed from July 1992 to November 1992 and, due to economic conditions, will be further delayed. Other positions will be filled as the economy allows.

- **Health and Safety Charter**

1. Policy Considerations

   Homer M. Cole is Director of Industrial Hygiene and Toxicology and is responsible for establishing industrial hygiene policy.

2. Industrial Hygiene Manual

   Industrial Hygiene compliance policies are issued for such programs as asbestos, hearing conservation, noise, etc. For the most part, these policies are required by law and must be frequently revised due to changes in the law.

3. Employee Training

   Training programs are developed by staff members and are often presented by staff personnel at operating facilities. Mandatory employee training programs include hearing conservation, hazardous wastes, PCB's, asbestos, respiratory protection, etc.

4. Training for Medical and Industrial Hygiene Field Personnel

   Due to the increasing complexity and number of governmental regulations affecting industrial hygiene, meetings are periodically held to update field personnel regarding company policy and new regulations.

5. Workplace Monitoring

   OSHA's 1989 Air Contaminants Standard at 29 CFR 1910.1000, requires workplace monitoring for chemical and physical hazards. This standard requires: (a) identification of hazardous chemicals; (b) identification of jobs with potential exposure to hazardous chemicals; (c) monitoring of hazardous chemicals to measure employee exposure; (d) analysis of exposure data; (e) recommend and implement controls to protect employee health. This function is carried out by four persons on the corporate industrial hygiene staff. For more specific information, see attachment on air contaminants.

6. Advise Line Staff

   This function is covered under Items 2, 3, and 4, above.

16. Hazard Communication Program

   Administer Reynolds' OSHA mandated Hazard Communication Program.

   See attachment on Hazard Communication.

PLEASE NOTE THAT ITEMS 19 THROUGH 25 DO NOT APPEAR IN THE MOST RECENT HEALTH AND SAFETY CHARTER. THE CHARTER WILL BE AMENDED TO REFLECT THESE NEW INDUSTRIAL HYGIENE RESPONSIBILITIES.

19. Hearing Conservation Program

   Administer Reynolds' OSHA mandated Hearing Conservation Program,

   See attachment for detailed explanation.

20. Asbestos Control Program

Administer Reynolds' Asbestos Control Program as mandated by OSHA at 29 CFR 1926.58, EPA at 40 CFR Part 61, and various state regulations.

See attachment for detailed explanation.

21. Audit Program

Reynolds' Industrial Hygiene Audit Program was created as a result of questions raised by the Reynolds Board of Directors. The program involves auditing Reynolds' plants for compliance with OSHA mandated industrial hygiene programs. These programs include:
(a) Occupational Exposure Assessment and Control
(b) Hearing Conservation
(c) Hazard Communication
(d) Respiratory Protection
(e) Asbestos Control
(f) Heat Stress
(g) Confined Space
(h) Hazardous Waste and Emergency Response, etc.

22. Respiratory Protection Program

Reynolds' Respiratory Protection Program is mandated by OSHA at 29 CFR 1910.134.

See attachment for detailed explanation.

23. Heat Stress Control Program

Reynolds' Heat Stress Control Program includes (a) distribution of appropriate training films and literature, (b) identification of any specific worksite risks of heat-related illnesses, and (c) maintenance of accurate statistics of all heat-related illnesses reported by plant locations.

24. Confined Space Program

Safety and Industrial Hygiene jointly administer the Confined Space Program.

See attachment for detailed explanation.

25. Hazardous Waste and Emergency Response

Administer Reynolds' Hazardous Waste and Emergency Response Program as mandated by OSHA at 29 CFR 1910.120/CFR 1910.38.

See attachment on Hazardous Waste and Emergency Response.

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AIR CONTAMINANTS
29 CFR 1910.1000

Policy Requirements/Constraints

The Occupational Safety and Health Administration (OSHA) presently regulates employee exposure to some 1,000 different hazardous chemicals. Chemicals may be regulated as 8-hour time-weighted exposures (8-hr TWA), short term exposure limits (STEL), or as ceiling limits (C). To evaluate employee exposure to hazardous chemicals, Reynolds' policy is to target moderate and high risk exposure groups, as outlined in the schedule below:

LOW RISK GROUP EXPOSURE <50% PEL	MODERATE RISK GROUP EXPOSURE >50% PEL <100%	HIGH RISK GROUP EXPOSURE >100% PEL
A. Monitor-3yrs.	A. Monitor-Annually	A. Monitor-6mos.
B. Training	B. Med. Surveil.	B. Med. Surveil.
	C. Training	C. Engineering Controls
		D. Work practices
		E. Pers. Protec. Equipment
		F. Training

This monitoring is carried out by Reynolds' corporate staff (all). In addition, Reynolds has trained a limited number of plant representatives to conduct sampling or, in some cases, plants/divisions contract out this function.

Corporate Industrial Hygiene evaluates the results and develops reports and recommendations on the findings. The information is used to ensure that our employees are not over-exposed to hazardous chemicals, demonstrate compliance with OSHA standards, effectively deal with worker's compensation claims, third party lawsuits, and union complaints.

Effects of Eliminating/Reducing the Function

This Corporate Industrial Hygiene and Toxicology function is to establish, implement, and maintain programs to identify and control employee exposure to chemical and physical hazards in the workplace and to Reynolds' products. The elimination of this function would jeopardize the health of Reynolds' workers, eliminate the in-house technical expertise for solving sensitive health-related issues, severely limit Reynolds' input in worker's compensation and product liability claims, limit Reynolds' input and knowledge in issues such as trace metals in packaging, electromagnetic fields, aluminum migration into food and beverages, and neurological issues relating to aluminum, such as cognitive function and Alzheimer's Disease.

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Benefits of Continuing Activity

Recognizing that our employees are our most valuable asset, continuation of this program provides assurance that employee exposures to hazardous chemicals are assessed and that appropriate controls are implemented to protect employee health; allows RMC to maintain its technical expertise to solve sensitive health-related issues and stay abreast of concerns relating to aluminum and health; provides the necessary information to deal with worker's compensation and product liability claims; and provides continued input into regulatory issues, such as OSHA standards, recycling, trace metals (CONEG), and aluminum neurotoxicity.

Automation Possibilities

The company has already purchased software to automate this function; however, there is not sufficient manpower or funds to implement the program.

HAZARD COMMUNICATION PROGRAM

Elements

1. Mandated by OSHA at 29 CFR 1910.1200
2. Employer Responsibilities

    a. develop and implement written hazard communication program
    b. obtain accurate and up-to-date MSDSs for chemicals used
    c. review MSDSs for completeness and accuracy
    d. ensure proper labeling of all incoming containers
    e. develop and implement labeling program for in-house containers
    f. develop and implement employee training and information program
    g. ensure that hazard communication information is provided to contractors

3. Manufacturer's Responsibilities

    a. conduct hazard determination for all products
    b. prepare MSDSs and container labels for all products subject to regulation
    c. update MSDSs periodically

Effects of Eliminating/Reducing the Function

1. OSHA citations for noncompliance

    a. fines of up to $70,000 per incident for willful violations

2. Employees could suffer adverse health effects due to lack of proper training which could result in increased Worker's Compensation claims and possible gross negligence or willful misconduct lawsuits.

3. Loss of sales and customers

    a. customers will be required to purchase products from manufacturers providing MSDSs as mandated by OSHA.

Benefits of Continuing Activity

This program is required by law. Moreover, the benefits of continuing the program are evident from the above discussion.

Automation Possibilities

Software has already been purchased to automate chemical inventories and MSDSs. Due to shortage of manpower and funds, however, this function has a backlog of approximately 4,000 MSDSs.

Additional software should be developed/purchased to allow a centralized automation of labels for in-house containers. This would free considerable plant time and allow for more consistent labels to be developed.

HEARING CONSERVATION PROGRAM

Elements

1. Mandated by OSHA at 29 CFR 1910.95
2. Assess noise levels in plants
3. Identify employees exposed to excessive noise
4. Examine the economic and technological feasibility of engineering and administrative controls to reduce noise levels
5. Where such controls are not feasible, implement a hearing conservation and protection program which involves:

    a. identifying employees subject to hearing protection requirements
    b. conduct initial and subsequent annual audiograms -- 18,000 Reynolds audiograms are conducted yearly.
    c. identify employees who suffer significant hearing loss
    d. give mandatory notice to affected employees
    e. conduct annual hearing conservation training

Effects of Elimination

1. OSHA citations for noncompliance can involve:

    a. OSHA fines up to $70,000 per incident for willful violations
    b. sometimes, using an effective hearing conservation program to dissuade OSHA from requiring engineering controls--engineering controls can involve millions and tens of millions of dollars

2. More employees will suffer hearing loss due to occupational exposure, which will result in higher worker's compensation losses.

Benefits of Continuing

This program is required by law. Moreover, as noted above, there are additional benefits from continuing this program.

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RMC0023401

ASBESTOS CONTROL PROGRAM

Policy Requirements/Constraints

Whenever asbestos-containing material is repaired, removed or encapsulated, Reynolds' policy requires compliance with the appropriate laws. These laws involve elaborate work practice, worker training, engineering control, and notification requirements. (See 29 CFr 1926.58, EPA at 40 CFR Part 62, RMC COM C-19.62.30, and numerous state regulations.)

Effects of Eliminating/Reducing the Function

Without an asbestos control program, RMC would be in direct violation of OSHA, EPA, and state regulations. Fines as a result of these violations could be serious or willful and could result in fines exceeding $1 million. (RMC was fined $600,000 as a result of violations related to asbestos removal at Hurricane Creek and was required to enter into a costly EPA consent agreement.)

Failure to adhere to these regulations would also result in RMC employees'--as well as outside contractors'--being exposed to significant levels of asbestos fibers. This would increase worker's compensation claims and third party litigation.

Benefits of Continuing Activity

This program is required by law. Moreover, continuing this program will minimize the risks described above.

Automation Possibilities

Automating the results of plant asbestos surveys should minimize the inadvertent handling of asbestos-containing material by RMC employees and outside contractors.

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RMC0023402

RESPIRATORY PROTECTION PROGRAM

Elements

1. Mandated by OSHA at 29 CFR 190.134
2. Provide and require respiratory protection where possible engineering controls will not reduce exposures to below acceptable levels

    a. develop and implement written respirator program
    b. select respirators based on hazard
    c. train employees on limitations and proper use, care, and maintenance of respirators
    d. conduct periodic air monitoring studies
    e. perform medical surveillance

3. Inspect monthly self-contained breathing apparatus and respirators used for emergencies

4. Provide appropriate safeguards/alarms for oil lubricated compressors that provide breathing air

Effects of Eliminating/Reducing the Function

1. OSHA citations for noncompliance

    a. fines up to $70,000 per incident for willful violations
    b. an effective respiratory protection program can sometimes be used to dissuade OSHA from requiring engineering controls -- engineering controls can involve monies in excess of $10 million, companywide

2. Employees could suffer serious adverse health effects from the non-use or misuse of respirators.

Benefits of Continuing Activity

This program is required by law. Moreover, the benefits of continuing the program are evident from the above discussion.

Automation Possibilities

None known.

TX TINER
RMC0023403

JOINT SAFETY AND INDUSTRIAL HYGIENE
CONFINED SPACE PROGRAM

Elements

1. Mandated by Occupational Safety and Health Administration
2. Identify confined spaces in plants
3. Classify as Class A or Class B
4. Label points of entry
5. Develop Practices and Procedures to include:
   - written entry permit system
   - atmospheric testing and monitoring
   - engulfment protection
   - thermal hazards
   - lockout/tagout
   - personal protective equipment
   - emergency rescue procedures
   - attendant system
   - training provisions
   - use of outside contractors

Effects of Elimination

1. Jeopardize health and safety of employees entering confined spaces.
2. Increase likelihood of injury and death.
3. OSHA citations and fines for noncompliance.

Benefits of Continuing

Benefits are evident from elements listed above.

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RMC0023404

HAZARDOUS WASTE AND EMERGENCY RESPONSE
29 CFR 1910.120

Policy Requirements/Constraints

This program is mandated by the Occupational Safety and Health Administration. This standard has an impact on all Reynolds facilities who are required to respond to an uncontrolled release of a hazardous substance. (Hazardous substances are defined by Occupational Safety and Health Act, Comprehensive Environmental Response Compensation and Liability Act, Department of Transportation, and Environmental Protection Agency.)

Plants who choose to evacuate, and not respond to an emergency release of a hazardous chemical, must develop an Employee Emergency Plan and Fire Prevention Plan (29 CFR 1910.38).

It is the responsibility of Corporate Industrial Hygiene to critique the progress and implementation of the response plans and/or evacuation plans of all Reynolds facilities; as well as, monitor the status of training programs and emergency evacuation drills to assure that plant's comply with OSHA requirements.

Effects of Eliminating or Reducing the Function

Non-compliance with these standards may result in employee injury and/or loss of life. This would result in significant penalties and third party liability. Reynolds presently has a 5 million dollar lawsuit in Alabama resulting from the death of a contract employee.

Benefits of Continuing Activity

Employees would be appropriately prepared to handle an emergency response resulting from a hazardous chemical release. Employees would be trained and prepared and third party liability would be lessened.

Automation Possibilities

Automation possibilities have not been considered since each plant has different considerations regarding response actions.

CLOSING

- IMPACT ON STRATEGIC SUCCESS OF COMPANY
  - Influence Regulatory and Legislative Process
    1. delisting of alumina as hazardous pollutant
    2. removing chromium from CONEG list
    3. negotiating less costly compliance options
- PROVIDE EXPERT ANALYSIS OF REGULATIONS AND DEVELOP CONCISE POLICIES
- DEVELOP POSITIVE RELATIONSHIP WITH REGULATORS
- ENHANCE REYNOLDS' POSITIVE IMAGE WITH CUSTOMERS THROUGH:

  OSHA HAZARD COMMUNICATION
  CANADIAN WHMIS
  CONEG
  CA PROPOSITION 65
- TEAMWORK APPROACH WITH PLANTS/DIVISIONS

- **Health Center**

The Health Center is designated for use by Reynolds' senior management (Hay grade 10 and above). It includes facilities for exercise, massage, steam room and sauna. An attendant, Leo De-Castro, is on hand three days per week (Monday, Wednesday, and Friday).

- Costs

The estimated direct cost of running the health center is $17,000/year, not including maintenance and upkeep.

Salary:	$15,000
Laundry:	4,400
Toiletries:	2,000
	$21,400
Massage Revenue:	-4,200
	$17,200

- Other Costs

  - Steam Room and Sauna Cost Analysis

Electrical	$4,850
Steam	1,999
Total	$6,051

Effects of Eliminating/Reducing the Function

Reynolds senior management would not have access to exercise, massage, and steam room/sauna.

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