And Male Come July 30,1962 Room 402 Hotel Riverside Reno, Nevada Mr. Dohald A. Nussbaumer, Chief Re:St.Louis Residues Source and Special Materials Branch Airport project Division of Licensing & Regulation U.S.Atomic Energy Commission Washington 25, D.C. att:Robert Layfield Dear Mr. Nussbaumer, I was pleased to talk with Mr. Layfield this morning, and appreciated his offer to phone me tomorrow after he has completed his review of our new material. Just as soon as the license is issued, I will be able to complete the file for my investment people. We are most eager to get going on this project yet this summer if at all possible, so that the plant might be in actual operation by November 1. Your interest is greatly appreciated. Sincerely yours, Clemons M. Roark CONTEMPORARY METALS CORP. CC:Mr.F.H.Belcher Mr. gene Loose Lite of Compilation U.S. Atomic Energy Commission LICENSING & REGULATION 8606120098 860527 PDR FDIA BARNES86-117 PDR PDR

7. Respirators, goggles, and all other protective equipment and clothing should be kept clean and in working order at all times. These items are furnished to you on a loan basis; their effectiveness will depend considerably upon the care you give them. Replacements of items or parts are available for issue as required. a. Employes are to use no other such items except their own. b. Such items shall be stored in your own locker so as not to become contaminated with dust. c. Filters and facelets shall be changed as often as necessary; respirators should fit snugly over nose and mouth; they should be washed and sanitized frequently with materials available in the Store Room and in Safety Equipment Stations. Screening and sampling 1. Keep these areas and pieces of equipment clean at all times, washing with water or cleaning with vacuum cleaner. 2. The dust collection system must be running properly in all areas where dry material is handled. 3. Inspection doors must be kept in place except when breakdowns or inspections require them to be opened. 4. Lunch 11s, boxes or sacks may not be stored in any part of this section. 5. Employes are required to wash their hands and face before eating. 6. Employes in this section are required to wear their respirators whenever the plant is in operation. Processing Areas 1.Be oned constant watch against any leaks in the system; report any breakdown or flow stoppage at once to your foreman. 2.All cleanout or inspection doors and hatches shall be kept closed at all times when in operation. 3. Aprons, galoshex and rubber gloves shall be worn in all cleanup operations or changeovers. These items of equipment and clothing shall be thoroughly washed after usage and replaced in their proper storage. Final Product Areas 1. These areas shall be kept clean and free from spilled solids or liquids at all times.

Plant Housekeeping Practice 1. Every effort should be made to avoid spilling and unnecessary dusting. Chances of causing air-borne particles or of getting material on clothing or the body are greatly lessened when the material is kept inside the preper processing equipment, conveyor equipment or storage vessels. The basic design and choice of items of equipment throughout the entire plant in all circuits has been deliberately considered with the end of keeping the entire process as self-contained as possible and manual handling of material to a minimum. 2. Always cleanup spills at once; in wet sections by flushing with water; in dry sections with vacuum cleaners provided for this purpose. Your section foreman or safety representative will instruct as to the disposal of vacuum bags, mops, and other cleaning materials or utensils. 3. The rooms containing filtering equipment, and the areas where precipitates or concentrates are produced or stored must be especially watched and kept clean at all times. Personal Cleanliness Personal cleanliness is not only a fundamental of good health and hygiens, but in radioactive material handling is of basic importance. 1. Hands and face should always be washed before eating or smoking, and always after performing work around concentrates or precipitates or in handling the dry raw material. 2. Work clothes should be changed and washed frequently. Clothing that has been splanhed with chemicals, precipitatex or concentrates should always be washed at the end of the shift if not possible before. 3.An apron, rubber gloves and boots should be worn when cleaning filters or handling precipitates or concentrates. In our plant this is kept to a minimum by the greatest degree of automatic, continuous-flow equipment, but the rule is still important to remember. These items of clothing should be washed clean and returned to designated storage place when the work is completed. 4. Cuts or small wounds should be treated at once and should be kept covered with clean dressings in accordance with good first aid principles. 5. Eating or smoking is not permitted in any areas of dusting or in areas where concentrates or precipates are handled. Lunches should not be kept in any such areas. 6. Employes should always shower at the end of the shift, if employed within the plant or in loading and unloading areas. Hands, arms and face should be washed during the shift as necessary to remove any dust, precipitates or other materfals.

radiation level in any area risd above the safety levels established with the Atomic Energy Commission, that part of the plant will be alarmed and immediately closed to general usage until the cause is determined and removed.

The primary consideration in working with radicactive

The primary consideration in working with radioactive materials, of course, is to guard against the material entering the body, and to prevent undue exposure to any source of radiation whose level is such that prolonged exposure might build up accumulated radiation within the body.

These two primary plant radiation problems are the problems of the plant officials and safety officials; their instructions are to resolve every doubt in favor of safety and health protection for the personnel of the plant.

But the third problem is that of the exercise of daily caution and safe working practice on the part of every individual within the organization. This problem cannot be solved solely by equipment, testing, or action by the Safety Directors. It is the day to day responsibility of each and every individual. The sections which follow are compiled from the rules and practices of other plants with long experience in this field. If they are carried out by everyone within the plant operation, a major factor in the maintenance of health and safety for all will be achieved.

Respiratory Protection

Dust respirators of the designated type for each job should be worn under the following conditions:

- 1. When loading equipment or trucks containing dry material are being cleaned out.
- 2. When sweeping or otherwise cleaning up dry materials on loading platform, dock, or other platform area, or any of the following areas or pieces of equipment:

Screening area, ore storage and transfer areas, and any other areas where dry material may be used or handled.

- 3. When working-in the loading and unloading areas, or in screening and sampling.
- 4. When pulverizing, screening, splitting or otherwise preparing samples of dry material for testing.
 - 5. When cleaning filters.
- 6. When working in the bagging or barreling department with the final products.
 - 7. Under any conditions where air-borne dust is present.

III.

Safe Practices and Procedures

for working with

Radioactive Materials

Introduction

Because Contemporary Metals Corporation is processing residue materials and concentrates, and some end products, which will contain uranium, thorium and ionium, which are radioactive materials, special rules and procedures have beem prepared to insure maximum safety and full health protection with respect to all conditions and practices which arise from their presence.

Employes with technical familiarity or training regarding modern chemical or mineral processing are of course familiar with the radioactive characteristics of the lelments mentioned. For those who may not have had previous contact with radioactive materials in industry, it is no doubt sufficient to point out that one of the greatest of all modern advances in science was the discovery first, that certain elements throw off tarisible particles or rays due to instability of the nucleus in the atom itself. Atoms that give off such nuclear radiation are called "radioactive."

We are all of us exposed to some degree of radiation throughout our lives -- cosmic rays from outer space, x-rays in dental and medical care, for example. Even our food and water contain small traces of radioactive elements in many cases. The mere presence of such radiation is not a harmful factor in our lives; it is only when over-exposure to radiation, or a rise in radiation levels to degrees far above those to which we are accustomed, occurs that a hazardous condition is presented. Even when working with radioactive materials in laboratory or industrial processes, it is possible to exercise precautions hich, if carefully followed, will insure conditions of completehealth and safety/ It is the purpose of the text which follows to establish for our plant thoss rules, practices and working procedures which will fully protect every employe from harmful effects of radiation and to insure that products shipped from the plant will be fully protected so far as persons handling or receiving them are concerned.

Plant Radiation Problems

Since we cannot see or feel, taste or hear, radiation, the first problem is that of detecting radiation within the plant and of measuring its levels at the various points along the line. For this purpose, the plant has been provided with automatic sampling and monitoring devices at every stage of handling, processing, precipitating, and shippingm so that the levels of radiation are known in the materials themselves, in the air, from floors and walls of processing areas, and in the end products and wastes. Should for any reason the

DOCKE 0 10 - 6811 TER File Copy DOCKETED USAEC CONTEMPORARY METALS CORPORATION Division of Licensing & Regulation St. Louis Residues Plant JUL 2 7 1962 asc PLANT SAFETY PROGRAM Docket Officer I. Personnel The Plant's Safety and Health Protection Program is under the direct charge of the Plant Safety and Health Director, who is personally responsible to the Plant Manager. The Director is responsible for instituting and maintaining a continuing program of instruction and training in safe working practice and use of equipment, prevention of accidents, plant health measures, and a first aid and in-plant medical care program for all personnel. A Safety Director for each shift is directly responsible to the Plant Safety and Health Director. Each shift Foreman, the Office Manager, and the Director of Research and Testing, are held personally responsible to see that all safety and health regulations and required practices are observed by the employes under them. A First Aid and Medical Care Office is maintained around the clock every working day. II. General Safety Rules and Regulations "General Plant Safety Rules and Regulations" have been prepared by the Plant Safety Director and are given to evey employe. The Director may supplement these from time to time, and all such changes, revisions or additions will be issued in writing. A Plant Safety Committee composed of the Plant Manager, the Plant Safety Director, the Shift Safety Directors, the First Aid and Medical Director, and the Director of Research and Testing, plus a designated Safety Representative from each department, will meet weekly at such time as may be convenient to the group. Employes should feel free to make suggestions, in a note or verbally to their Safety Representative, of any unsafe situations coming to their attention or any improvements of procedure or equipment which might increase the level of safe working practice or health attention within the plant at any point. All accidents or any illnesses should be reported at once to the First Aid and Medical Director and of course to the head of the department. III. Safe Practices and Procedures for Working with Radioactive Materials

ough Draft only 7/20/62 ISR File Copy are important Clemons M. Roark, President CONTEMPORARY METALS CORPORATION Cong Supplied Div. of Compliance 7/20/62-RRR 1830

CONTEMPORARY METALS CORPORATION Residues Processing Plant

St. Louis County, Missouri

PLANT SAFETY PRACTICES AND PROCEDURES

To All Staff and Employes:

Contemporary Metalx Corporation under terms of an award from the United States Atomic Energy Commission has undertaken the purchase and processing of a stockpile of residues and concentrates left over from the days of World War II, a stockpile which contains valuable minerals, including copper, nickel, cobalt, scandium, rhenium and rare earths, as well as some remaining radioactive elements, uranium, thorium and ionioum. The job to be done is a complex operation of chemical and electrolytic actions which will recover the valuable minerals in usable form, remove the radioactive elements for disposal or marketing, and render the final waste products as nearly free of such materials as is technically possible.

While time and efficiency in production/to the job at hand, the officers and directors of the corporation are concerned and eager that every every member of the technical and management staff, and all employes, be conscious of the need to maintain the highest degree of safe practice throughout the entire operation -- all the way from the loading dock at the A.E.C. site, through our own plant, and to the loading and shipping of the final products and wastes.

In many respects, plant safety practice will be found to parallel that of other milling, metallurgical and chemical plant operations, and the safety rulex and the protective equipment found will be the same as in other modern operations of such kind. However, because of the fact that the material coming into the plant in this case does contain about two tenths of a percent radioactive elements, and some of the end products (the uranium, and the thorium-ionium compounds) will be of high radioactive-element content, it is important that all the latest knowledge and the most up-to-date protective and detecting equipment be used, so that in this field too there will be the highest degree of safe practice and health protection. The instructions and procedures which follow have this end as their objective. With the complete cooperation of every person working in the office, laboratory, plant or shipping department, we hope to make this operation one of maximum safety in every re-

DOCKETED USAEC Division of Licensing & Regulation JUL 2 7 1962 ase Docket Officer

LICENSING & REGULATION

Contemporary Katale Corp.		DATE OF DOCUMENT	DATE RECEIV	/ED	[NO ₄		
		July 30, 1 62		1, 1962	7935		
Fue, bevede		LTR. MEMO REPORT, OTHER					
D. Nussbaumer Liv. of LAR		ORIGA CG OTHER 2 CYC. VOYICEXED					
		ACTION NECESSARY NO ACTION NECESSARY	CONCURRENCE COMMENT		DATE ANSWERED, BY.		
LA55(F.)	POST OFFICE	FILE CODE	- 1		-		
Ü	REG. NO:	40-6811	40-6811				
DESCRIPTION: (Must Be Unclassified) Ar. re. tolecon with Fr. Leyfield c		REFERRED TO	DATE	REG	RECEIVED BY		
E 1881.84.		1-compliance cy					
		Lanfreld	1		****		
EMARKS Hell Kolf Tietribution: 1-TER Copy						1	
				*			
U. S. GOVERNMENT PRINTIN	G OFFICE: 1961 813958	U. S. ATOMIC ENERGY COMMISSION	MAIL	CONTRO	L FORM FO	ORM AE	
TOTAL PROPERTY AND INCIDENCE OF THE	Market St. Commission of the C	The state of the s	SECTION AND DESCRIPTION AND	CONTRACTOR OF THE PARTY OF THE	MANAGEMENT OF STREET	(0.00	