

STANDARD OPERATING PROCEDURES  
ACCOMPANYING COGEMA MINING, INC.  
SUBMITTAL TO THE US NRC  
JULY 17, 2009

SUA-1341  
DOCKET NO. 40-8502

No.: E-11	<b>COGEMA Mining, Inc.</b>	
Rev. No.: R6	<b>STANDARD OPERATING PROCEDURES</b>	
Date: 03/20/08	Title: <b>Transportation Accidents Involving Radioactive LSA Material</b>	Page 1 of 3

### **Purpose**

An accident involving vehicles transporting uranium (yellowcake) slurry or powder could result in the spillage. In the event that an accident with or without spillage occurs, the following emergency procedures will be used to minimize health and safety risks to carrier personnel and the general public. The procedures will also be used when transporting other Radioactive LSA materials, such as ion exchange resin or byproduct (waste), on public highways.

### **Drivers Procedures**

The truck driver will be given the following emergency documents which must be carried with the shipping papers.

1. Driver's Emergency Statement (attached)
2. MSDS Sheet for Yellowcake (attached)
3. Driver's Emergency Procedures (attached)
4. SOP E-10; Treating Accident Victims Who Are Contaminated With Uranium
5. Route Document and State Accident Response Phone Numbers

### **Notification and Response Procedures**

In the event of an accident, the driver will contact at least one of the response personnel listed on the Driver's Emergency Statement. The first person contacted will obtain the following information and then attempt to contact the other personnel on the list.

1. Any injuries?
2. Where is the accident? (highway number, mile marker, nearest town)
3. Condition of yellowcake shipment? Any spills?
4. Have the local police been notified?
5. Has anyone been contaminated?
6. Current weather conditions?
7. Phone number for future contact?

The Casper, Wyoming office is designated the Accident Response Center. Its location is: COGEMA Mining Inc., (307) 234-5019, 935 Pendell Blvd., Mills, WY 82644. The response team members will normally assemble and plan the clean-up at either the Casper office or the mine site, whichever is more appropriate.

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The Operations Manager or designee will take charge of the overall clean-up program. Notification to the NRC Headquarters Duty Officer (301- 816-5100; 24 hours a day), as well as other agencies and the media, will be made by the Operations Manager.

The following items can be obtained at the Irigaray Mine Site for clean-up and recovery of the spilled yellowcake.

1. Spill Contingency packages; see attached list
2. Metal drums with lids to contain the spilled yellowcake and contaminated soil.
3. Backhoe, trailer, generator and any other large equipment which would be needed.

#### **Protective Clothing and Respirator Requirements**

The following protective clothing will be worn by the clean-up crew to protect them from contamination while they are working in the contaminated area.

1. Rubber gloves. If the yellowcake is dry, cloth gloves may be used if approved by the RSO/RST..
2. Rubber boots or rubber shoe cover, depending on the amount of spilled yellowcake.
3. Tyvek coveralls.
4. Tyvek sleeves and hoods if needed.

Respirators will be worn in the contaminated area to protect the clean-up crew from airborne uranium if the yellowcake is dry and uncovered. All clean-up crew workers will be trained and medically approved to wear respirators as stated in SOP HP-20.

Designate change areas at the boundary of the contamination area to prevent tracking contaminants into clean areas. Contaminated clothing and equipment will be secured in plastic bags.

#### **Clean-up and Recovery Procedures**

1. Survey, define and mark the contaminated area.
2. Cover nearby uncontaminated areas with plastic sheeting to prevent further contamination.
3. If the yellowcake is dry, use the water sprayer to keep it moist and reduce airborne uranium.
4. Use shovels and the backhoe (if needed) to removed the yellowcake and contaminated soil and place them into the metal drums.

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5. If large amounts of contaminated material need to be removed, a large truck mounted container, certified for hazardous materials, may be needed. These containers along with a truck and trained driver are available from Waste Connections of Wyoming (Casper, Wyoming) at (307) 266-1161.
6. Ship the contaminated material to the Shirley Basin Mine site, Irigaray Mine site or to a near-by licensed disposal facility, using the proper placarding, labeling and shipping documents. See SOP HP-19.

### **Radiological Monitoring**

Radiological health monitoring and monitoring for contamination at the accident site will be conducted using the HP Standard Operating Procedures. The health of the public will also be considered in the monitoring program at the accident site.

Any areas or equipment affected by an uncontrolled release of radioactive materials shall be decontaminated in accordance with the criteria contained in "Guidelines for the Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct or Source Materials" dated September, 1984.

### **Resin Shipment Guidelines**

Resin shipments between the Irigaray and Christensen Mines (15 miles of private road) will be transported by COGEMA employees. The resin and any residual water in the truck tank, does not pose a significant radiological or chemical hazard. However, if a serious accident occurs, the RSO or RST and at least one of the site supervisors, must be notified immediately. If a spill of resin and/or solution occurs, the emergency response package should be used to contain and mark the spill area. The RSO or RST will then oversee the cleanup of the spill, using the applicable Clean-up and Recovery Procedures listed earlier in this SOP.

## ATTACHMENT TO SOP E-11

### SPILL CONTINGENCY PACKAGES - EQUIPMENT AND MATERIAL LIST

#### Boot Box

Light duty pullover boots - 1 L; 2 XL; 2 Jumbo  
Heavy duty pullover boots - 2 L; 1 XL

#### Additional Boots

Heavy duty pullover boots - 2 size 11; 1 size 13

#### Respirator Box (green cooler):

4 Survivair half-face respirators with HEPA cartridges (4 extra)  
2 MSA full-face respirators with both HEPA and chemical cartridges  
2 Scott full-face respirators with HEPA cartridges (6 extra)

#### Gloves, Hoods and Sleeves Box:

Disposable vinyl gloves - 200 each  
Heavy duty rubber gloves - 48 pair  
Tyvek hoods - 10 each  
Tyvek sleeves - 20 each

#### Coveralls:

Tyvek coveralls, size large - 1 case of 25 each  
Tyvek coveralls, size X-large - 1 case of 25 each

#### Miscellaneous Materials Box (red cooler):

1 head lamp (for mounting on head) with batteries  
5 rolls of strapping tape  
Box with swipes, envelopes and filters for air sampling pump  
4 "Caution Radioactive Material" signs  
1 reflective traffic warning triangle  
10 urine/soil/water sample bottles  
10 small plastic bags  
10 heavy duty 3 x 5 foot plastic bags  
container of approximately 50 large nails and washers  
2 cans of orange spray paint

#### Other Items:

1 roll of 6 mil clear plastic sheeting; 20 x 100 feet  
1 5 gallon water sprayer  
1 roll of approximately 250 feet of poly rope  
10 orange safety cones  
4 shovels

**ATTACHMENT TO SOP E-11**  
**DRIVER'S EMERGENCY STATEMENT - TO WHOM IT MAY CONCERN:**

In the event of an accident, the following emergency information is given to familiarize the responders with the product and to provide a list of response personnel to be notified.

**PRODUCT DESCRIPTION**

1. The trailer contains **natural uranium ore concentrate**, commonly called **yellowcake**.
2. The yellowcake will be either a dried powder (yellowish-brown) transported in drums within an enclosed van, or a wet slurry (bright yellow) transported in a tanker.
3. The shipment is labeled with the United Nations ID No.2912 (UN 2912), which designates the product as **RADIOACTIVE MATERIAL, Low Specific Activity (LSA), n.o.s.** (not otherwise specified). The U.S. Department of Transportation 1990 Emergency Response Guidebook (DOT P 5800.5) lists the material under Guide No. 62.

**PRODUCT SAFETY**

1. The truck and trailer can be approached without any health concerns unless there is spillage. If spillage occurs, avoid spreading or handling the yellowcake.
2. Yellowcake is **not a significant radiological hazard**, but ingestion and inhalation of the material should be avoided since it can be harmful due to metal poisoning.
3. The product will not explode, burn, irritate the skin or produce poisonous gasses.
4. If anyone is injured, **medical treatment should begin without delay**. If anyone is contaminated with yellowcake, follow the guidelines for treatment and decontamination in the attached Standard Operating Procedure E-10 "Treating Accident Victims Who Are Contaminated With Uranium".
5. The attached Material Safety Data Sheet (MSDS) can be referenced for additional details on the properties and hazards of yellowcake.

**NOTIFICATION OF RESPONSE PERSONNEL**

Contact the State Highway Patrol and request their assistance in guarding the site and contacting any other State agencies which require notification. The telephone number for the Highway Patrol of each state is listed on the ROUTE DOCUMENT AND STATE ACCIDENT RESPONSE PHONE NUMBERS document which is enclosed with the shipping papers. Once the State agencies are notified, contact at least one of the following response personnel.

COGEMA Mining, Inc.

Mark Owens,  
Office: (307) 464-1424

Operations Manager  
Home: (307) 265-2976

Bernard Bonifas,  
Office: (307) 234-5019

General Manager  
Home: (307) 235-0011

Larry Arbogast,  
Office: (307) 464-1427 Ext. 34

Radiation Safety Officer  
Home: (307) 684-7453

Don Whipple,  
Office: (307) 464-1427 Ext. 17

Radiation Safety Technician  
Home: (307) 217-3099

Give this statement and all other shipping papers to the law enforcement agency upon their arrival.

## ATTACHMENT TO SOP E-11

### MATERIAL SAFETY DATA SHEET

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

<b>URANIUM OXIDE</b>	Yellowcake
<b>DANGER!</b>	Harmful if swallowed or inhaled Overexposure can affect the kidneys Radioactive material Prolonged or repeated exposure may cause cancer
<b>TYPICAL COMPOSITION</b>	Uranium Oxide (CAS 7440-61-1) - <u>UO<sub>4</sub> · 2H<sub>2</sub>O, UO<sub>3</sub> or U<sub>3</sub>O<sub>8</sub></u> Contains less than 1% each of: sulfur (CAS 7704-34-9) zirconium (CAS 7440-67-7) molybdenum (CAS 7439-98-7) calcium (CAS 7440-70-2) silicon (CAS 7440-21-3)
<b>EXPOSURE STANDARD</b>	The annual occupational limit on intake (ALI) for uranium-natural is set by the U.S. Nuclear Regulatory Commission at 1 uCi for soluble material and 5 E-2 uCi for insoluble material.
<b>PHYSIOLOGICAL/HEALTH EFFECTS AND EMERGENCY FIRST AID PROCEDURES</b>	
<b>EYES</b>	May cause eye irritation due to the abrasive action of the dust. Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. If irritation persists, see a doctor.
<b>SKIN</b>	Not expected to be irritating to the skin. See Additional Health Data. Remove contaminated clothing. Wash skin thoroughly with soap and water. Launder contaminated clothing.
<b>INHALATION</b>	Harmful if inhaled. Overexposure can cause kidney damage. See Additional Health Data. If respiratory irritation or any signs or symptoms as described in this MSDS occur, move the person to fresh air. If any of these effects continue, see a doctor.
<b>INGESTION</b>	Harmful if swallowed. Overexposure can cause kidney damage. See Additional Health Data. REAC/TX at Oak Ridge National Laboratories advise that to induce vomiting after yellowcake ingestion would be an acceptable emergency action, although vomiting may not be necessary in all situations since only 1-2 percent of the yellowcake would be absorbed into the body through the gastrointestinal tract. Seek medical attention or consult the company RSO before inducing vomiting.

#### ADDITIONAL HEALTH DATA

The primary hazard to personnel working with uranium oxide (U<sub>3</sub>O<sub>8</sub>) is absorption of U<sub>3</sub>O<sub>8</sub> through inhalation or by contamination entering the mouth. Contamination can also enter the body through any breakage of the skin. If too much U<sub>3</sub>O<sub>8</sub> is absorbed, uranium metal poisoning can occur causing damage to the kidney. This appears to be more of a hazard than the radiological hazard. The specific activity for uranium-natural is 6.77x10<sup>-7</sup> curies per gram of uranium.

#### SPECIAL PROTECTIVE INFORMATION

**EYE PROTECTION:** Chemical safety goggles must be worn if there is any chance of contact with eyes.

**SKIN PROTECTION:** Avoid contact with the skin or clothing. Skin contact can be minimized by wearing impervious protective clothing including rubber gloves, rubber boots and coveralls.

**RESPIRATORY PROTECTION:** Wear approved respiratory protection such as a toxic dust /mist/fume/radionuclide respirator equipped with MSHA approved filters (MSHA No. TC-21C-135).

**VENTILATION:** Use this material only in well ventilated areal. If operating conditions result in the release of dust, special ventilation may be necessary to reduce exposure to the lowest feasible levels.

## ATTACHMENT TO SOP E-11

### MATERIAL SAFETY DATA SHEET (continued)

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**URANIUM OXIDE**      Yellowcake

#### FIRE PROTECTION

FLASH POINT: n/a

AUTOIGNITION TEMP: n/a

FLAMMABILITY LIMITS: n/a

EXTINGUISHING MEDIA: CO<sub>2</sub>, Dry Chemical, Foam, Alcohol-type Foam, Water Fog

SPECIAL FIRE FIGHTING PROCEDURES: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus. See Hazardous Decomposition Products. Read entire MSDS.

#### ENVIRONMENTAL PROTECTION

ENVIRONMENTAL IMPACT: Certain geographical areas have air pollution restrictions concerning the use of material in work situation which may release particular contaminants to the atmosphere. Air pollution regulations should be studied to determine if this material is regulated in the area where it is to be used.

PRECAUTIONS IF MATERIAL IS RELEASED OR SPILLED: If this material is released into a work area, evacuate the area immediately. Persons entering the contaminated area to correct the problem and determine whether it is safe to resume normal activities must comply with all instructions in Special Protective Information.

WASTE DISPOSAL METHODS: Care should be taken to ensure that surplus plant equipment, piping, sludge, film, process waste, and effluents are free of radioactive contamination before leaving company control. If plant equipment is contaminated, disposal of such material and associated waste should be accomplished in accordance with the instructions of the responsible regulatory agency.

#### REACTIVITY DATA

STABILITY: Stable

CONDITIONS TO AVOID: Avoid extremely high temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID): n/a

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may produce radioactive products.

HAZARDOUS POLYMERIZATION: Will not occur.

#### PHYSICAL PROPERTIES

SOLUBILITY: Soluble in HCl, H<sub>2</sub>SO<sub>4</sub>, HNO<sub>3</sub> and H<sub>3</sub>PO<sub>4</sub>; insoluble in water.

APPEARANCE (COLOR, ODOR, ETC): Yellow or yellow-brown to olive green-black powder.

BOILING POINT: n/a

MELTING POINT: 1300°C; decomposes

SPECIFIC GRAVITY: 8.30 @ 15.6/15.6°C

VAPOR PRESSURE: n/a

VAPOR DENSITY (AIR=1): n/a

PERCENT VOLATILE (VOLUME %): n/a

EVAPORATION: n/a

MOLECULAR WEIGHT: 842.09

VISCOSITY: n/a

n/a = Not Applicable

## ATTACHMENT TO SOP E-11

### DRIVER'S EMERGENCY PROCEDURES

1. In case of an accident read the "Driver's Emergency Statement" and give it to the law enforcement agency upon arrival. Assure the authorities that there is no significant radiological hazard.
2. Caution on-lookers to stay away from the material. Keep them at a distance of at least 30 feet. Extreme distance is not necessary.
3. If a spill has occurred, locate the contingency package sent with the shipment to contain the yellowcake and prevent it from being tracked. The package will contain the following as a minimum:
  - 1 Roll - 200 Ft<sup>2</sup> or greater plastic sheeting
  - 2 pairs coveralls
  - 2 pairs rubber boots
  - 4 pairs rubber gloves
  - 1 pocket knife
  - 2 respirators
  - Reflector warning and radiation signs
  - Polyethylene rope
  - 1 claw hammer
  - 10 metal tent pegs
  - 1 box heavy duty plastic bags
  - 1 shovel
4. Use the shovel to dig a trench or build an earth dike around the material. Cover the spill with the plastic sheeting to prevent it from becoming airborne. Avoid breathing yellowcake dust as much as possible.
5. Rope and mark-off the spill area and protect the cargo. Do not try to recover any of the spilled unless instructed to do so by COGEMA personnel.
6. Be sure that at least one of the key personnel listed on the "Driver's Emergency Statement" have been contacted and wait for further instructions.

No.: HP-31	<b>COGEMA MINING, INC.</b>	
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Date: 5/27/09	Title: <b>Beta Exposure Survey</b>	Page 1 of 2

**Purpose**

Annual External Beta survey will be done in the areas where employees are in close contact with yellowcake such as the filterpress, precipitation tanks, and Drypack area.

**Instrumentation and Calibration for Beta Surveys**

Instrumentation: Eberline Model E-120 or equivalent with a HP-270 probe or equivalent. Ascertain that the calibration for the instrument and detector combination is current.

Calibration for Beta Surveys:

1. Utilizing a tray of dried yellowcake product (the product must be a minimum of 100 days removed from processing to assure the buildup of beta-emitting progeny from U-238 and U-235), hold the face of the probe 2 cm. away from the surface of the yellowcake and take a measurement with the detector window open; record the reading on a copy of the attached form (bottom of form). In a similar fashion take a reading with the detector window closed; record the reading.
2. Using the following formula, calculate a correction factor (CF):

$$(75 \text{ mrem/hr}) / (\text{open window reading} - \text{closed window reading}) = \text{CF}$$

Note: A bed of aged yellowcake at two cm. will have a beta dose rate at 2 cm. equaling 75 mrem/hr. The above formula generates a correction factor that allows the conversion of the net reading (open minus closed) to 75 mrem/hr when the measurements are taken with the detector held 2 cm above the yellowcake.

Example: open reading = 25 mrem/hr; closed reading = 5 mrem/hr (both readings taken with detector 2 cm. above the yellowcake surface).

$$\text{CF} = (75 \text{ mrem/hr}) / (25 \text{ mrem/hr} - 5 \text{ mrem/hr}) = 75/20 = 3.75$$

Therefore, a net (open-closed) meter reading of 20 mrem/hr is equivalent to 75 mrem/hr beta:

$$20 \text{ mrem/hr} \times 3.75 = 75 \text{ mrem/hr beta}$$

**Procedure**

1. Using the same GM survey meter with a compensating probe as calibrated for beta above and after checking battery status and function status: take open and closed window readings, holding the detector 2 cm above the surface of the object being surveyed.
2. Record the readings on the attached form.

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3. Subtract the closed window reading from its corresponding open window reading, record the difference and multiply the difference by the CF to derive the beta radiation exposure rate in mrem/hr.
4. Surfaces that should receive particular survey attention include railings, packaging drums, circuit controls, and any other surfaces that are more likely to be physically touched by workers or that are proximate to workers during their normal duties.

#### **Quality Assurance/ Quality Control**

1. Each day a radiation measuring or counting instrument is used, it first must be checked with the proper source (Cs 137) and read within 20% of calibration. See SOP – 14.
2. All radiation survey instruments are calibrated annually, or as recommended by the manufacture, whichever is more frequent. See SOP – 14.
3. The above described CF determination for beta must be done before every beta survey.

#### **References**

U.S. Nuclear Regulatory Commission, Regulatory Guide 8.30, Health Physics Surveys in Uranium Recovery Facilities, June, 1983.

U.S. Nuclear Regulatory Commission, Regulatory Guide 8.30, Health Physics Surveys in Uranium Recovery Facilities, DG-8026, Proposed Revision 1, May, 2002.

## BETA DOSE RATE SURVEY

Irigaray Site; Annual Survey

Date \_\_\_\_\_ Surveyor \_\_\_\_\_

IR Site - Survey Location	mR/Hour at 30 cm		Difference	Beta mrem/hr
	Open Window	Closed Window	(Open - Closed)	(Difference X C.F.)
Main Plant - Yellowcake sample storage locker				
Main Plant - Contaminated storage area				
Plant Annex - North eluate tanks (4)				
Plant Annex - North elution column				
Plant Annex - South elution column				
Plant Annex - South eluate tanks (4)				
Plant Annex - Contaminated storage container				
Plant Annex - Waste tank				
Plant Annex - Precipitation tanks (4)				
Plant Annex - Large cone tank; y.c. slurry				
Plant Annex - Filter press and hopper				
Dry Pack - Grey cone tank ; y.c. slurry				
Dry Pack - White cone tank				
Dry Pack - Drum storage area; full drums				
Dry Pack - Mid level; bag house				
Dry Pack - Mid level; dryer unit				
Pond RA Building - Barium mix tanks (2)				

Instrument: I. D. \_\_\_\_\_ Calibration Date \_\_\_\_\_

### Beta Calibration of Survey Instrument per US NRC Regulatory Guide 8.30; pages 13 and 17

To determine the calibration factor (C.F.) that applies at a distance from the surface, place the axis of the detector at 2 centimeters from the surface of an extended yellowcake source (separated from ore for at least 100 days).

Record both the open and closed window readings. Calculate the C.F. using the following formula.

$$(*75 \text{ mrem/hr}) / (\text{open window reading } \underline{\hspace{1cm}} - \text{closed window reading } \underline{\hspace{1cm}}) = \underline{\hspace{1cm}} \text{ C.F. mrem/mR at 2 cm}$$

\* Note that the beta dose rate for an extended yellowcake source is 75 mrem/hr at 2 cm.

The value obtained at 2 cm will generally be accurate enough to use at all distances greater than 2 cm.

**BETA DOSE RATE SURVEY**  
 Christensen Ranch Site; Annual Survey

Date \_\_\_\_\_ Surveyor \_\_\_\_\_

CR Site - Survey Location	mR/Hour at 30 cm		Difference	Beta mrem/hr
	Open Window	Closed Window	(Open - Closed)	(Difference X C.F.)
Main Plant - IX column #1				
Main Plant - IX column #2				
Main Plant - IX column #3				
Main Plant - IX column #4				
Main Plant - IX column #5				
Main Plant - IX column #6				
Main Plant - IX column #7				
Main Plant - IX column #8				
Sand Filter #1				
Sand Filter #2				
Sand Filter #3				
Sand Filter #4				
Main Plant RO Unit #4				
Main Plant RO Unit #7				
Main Plant RO Unit #8				
Main Plant Sock Filters				
Restoration Plant - IX column #1				
Restoration Plant - IX column #2				
Restoration Plant RO Unit #5				
Restoration Plant RO Unit #6				
Restoration Plant RO Unit #9				
Restoration Plant Sock Filters (1)				
Restoration Plant Sock Filters (2)				

Instrument: I. D. \_\_\_\_\_ Calibration Date \_\_\_\_\_

**Beta Calibration of Survey Instrument per US NRC Regulatory Guide 8.30:**

To determine the calibration factor (C.F.) that applies at a distance from the surface, place the axis of the detector at 2 centimeters from the surface of an extended yellowcake source (separated from ore for at least 100 days).

Record both the open and closed window readings. Calculate the C.F. using the following formula.

$$(*75 \text{ mrem/hr}) / (\text{open window reading} \text{ \_\_\_\_\_\_ } - \text{closed window reading} \text{ \_\_\_\_\_\_ }) = \text{ \_\_\_\_\_\_ } \text{ C.F. mrem/mR at 2 cm}$$

\* Note that the beta dose rate for an extended yellowcake source is 75 mrem/hr at 2 cm.

The value obtained at 2 cm will generally be accurate enough to use at all distances greater than 2 cm.

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### **Purpose**

The objective of this procedure is to limit radiation exposure to a declared pregnant worker's embryo/fetus during pregnancy. 10 CFR 20.1208, Dose equivalent to an Embryo/ Fetus, requires the licensee to ensure that the dose equivalent to the embryo/fetus during the entire pregnancy, due to occupational exposure of a declared pregnant employee does not exceed 0.5 rem (5mSv). The licensee must make efforts to avoid substantial variation above a uniform monthly exposure rate to a declared pregnant employee so as to satisfy this dose limit.

### **Procedure**

1. This procedure is predicated upon the employee voluntarily declaring in writing her pregnancy. It is also important for the declared pregnant worker to provide the estimated date of conception to the RSO in order to evaluate the embryo/fetus dose as of the date of declaration.
2. Upon receipt of a written declaration of a pregnancy the RSO shall conduct a dose evaluation from the date of conception to the declaration date.
3. The employee's work duties will be assessed by the RSO to ensure that the dose to the embryo/fetus does not exceed 0.5 rem (5mSv) during the entire pregnancy. After subtracting the dose to date, pursuant to step 2 above, the remaining gestation time span will be applied to the anticipated dose rate to assess whether or not the 0.5 rem limit to the embryo/fetus will be exceeded. If it appears that the total dose may exceed 0.5 rem, the worker's duties will be modified to assure the remaining dose will be sufficiently low to avoid exceeding the 0.5 rem limit.
4. The employee will be given reinforcement training per Regulatory Guide 8.13.
5. The lower dose limits for the embryo/fetus will remain in effect until the employee withdraws the declaration in writing or is no longer pregnant.