

	<p>YOU SHOULD KNOW THAT INTERNAL CONTAMINATION POSES A FAR GREATER RISK TO YOU THAN EXTERNAL, AND THAT YOU SHOULD TAKE ALL POSSIBLE MEASURES TO AVOID IT.</p> <p>THIS INCLUDES THE USE OF APPROPRIATE PROTECTIVE EQUIPMENT, IF YOU ARE TRAINED TO DO SO, AND ESPECIALLY, THAT NO ONE IS ALLOWED TO EAT, SMOKE, OR DRINK IN THE VICINITY OF THE INCIDENT.</p>
10	<p>THIS CONCLUDES MODULE 3, IN THE NEXT MODULE, NUMBER 4, WE WILL BEGIN TO DISCUSS RESPONDING TO EMERGENCIES INVOLVING RAM.</p>

	<p>LOCATION IS CONSIDERED IDLH IT MEANS YOU MUST BE TRAINED, HAVE NECESSARY PROTECTIVE EQUIPMENT, AND MONITORING EQUIPMENT TO ENTER THAT AREA.</p> <p>DOSE – AS PREVIOUSLY DESCRIBED, DOSE IS THE TOTAL AMOUNT OF RADIATION YOUR BODY ABSORBS DURING ANY EXPOSURE.</p>
8	<p>THIS INFORMATION IS ESPECIALLY IMPORTANT TO UNDERSTAND – YOU SHOULD UNDERSTAND THE DIFFERENCE BETWEEN CONTAMINATION AND EXPOSURE</p> <p>CONTAMINATION IS WHEN RADIOLOGICAL MATERIAL IS SOMEPLACE IT SHOULDN'T BE – INCLUDING YOU</p> <p>EXPOSURE IS WHEN YOU ARE IN AN AREA WHERE RADIATION IS PRESENT</p> <p>ONE PROPERTY THAT IS UNIQUE TO RADIOACTIVE MATERIAL IS THAT YOU CAN BE EXPOSED WITHOUT COMING INTO DIRECT CONTACT WITH THE MATERIAL.</p> <p>BUT, MOST IMPORTANTLY, IF YOU ARE CONTAMINATED WITH RADIOACTIVE MATERIAL, YOU ARE CONSTANTLY EXPOSED UNTIL THE CONTAMINATION IS REMOVED.</p>
9	<p>ANOTHER IMPORTANT CONCEPT IS UNDERSTANDING THE DIFFERENCE – AND HEALTH RISKS ASSOCIATED WITH – INTERNAL AND EXTERNAL CONTAMINATION.</p> <p>EXTERNAL CONTAMINATION IS MATERIAL THAT IS ON YOU OR YOUR CLOTHING.</p> <p>EXTERNAL CONTAMINATION POSES SOME RISKS TO THE RESPONDER HOWEVER, THIS CONTAMINATION MAY BE REMOVED BY WASHING OR CLEANING.</p> <p>INTERNAL CONTAMINATION IS WHEN RADIOLOGICAL MATERIAL GETS INSIDE YOUR BODY.</p> <p>THIS CAN HAPPEN WHEN THE MATERIAL IS SWALLOWED OR INHALED.</p> <p>INTERNAL CONTAMINATION MAY BE VERY DIFFICULT TO REMOVE, AND MAY REQUIRE THE USE OF SPECIALIZED MEDICATIONS TO ELIMINATE.</p>

5	<p>NEXT IS BETA</p> <p>LIKE ALPHA, BETA IS ALSO A PARTICLE, HOWEVER</p> <p>BETA CAN HAVE MUCH HIGHER ENERGY LEVELS.</p> <p>BETA IS A SERIOUS INTERNAL HAZARD, AND CAN CAUSE SERIOUS INJURY IF ALLOWED TO GET INSIDE YOUR BODY.</p> <p>BETA CAN BE STOPPED BY A SHEET OF ALUMINUM FOIL.</p> <p>BEING EXPOSED TO BETA IS LIKE BEING SHOT WITH A PAINT BALL GUN –</p> <p>IT WOULD BE STOPPED BY YOUR TURN-OUT CLOTHING, BUT</p> <p>YOU WOULDN'T WANT TO BE HIT ON YOUR EXPOSED SKIN.</p>
6	<p>LAST, WE COME TO GAMMA. UNLIKE ALPHA AND BETA, GAMMA IS A WAVE, LIKE LIGHT OR HEAT ENERGY.</p> <p>GAMMA IS AN EXTREMELY HIGH ENERGY WAVE, SIMILAR TO X-RAYS.</p> <p>GAMMA POSES BOTH AN INTERNAL AND EXTERNAL HAZARD AND REQUIRES HEAVY SHIELDING, SUCH AS LEAD, TO STOP IT.</p> <p>TO YOU, GAMMA IS LIKE THE RIFLE BULLET –</p> <p>IT WILL PENETRATE A LOT OF MATERIAL BEFORE IT IS STOPPED.</p>
7	<p>SOME TERMS WE WILL BE USING THROUGHOUT THIS COURSE INCLUDE:</p> <p>RAM – JUST OUR ABBREVIATION FOR RADIOACTIVE MATERIAL.</p> <p>RADIOLOGICAL – IS A TERM USED TO REFER TO ANYTHING TO DO WITH RADIATION OR RADIOACTIVITY.</p> <p>THE TERMS BECQUEREL AND CURIE - ARE UNITS OF MEASUREMENT FOR THE AMOUNT OF RADIATION IN A GIVEN QUANTITY OF MATERIAL. THESE ARE ABBREVIATED BQ AND CI.</p> <p>IDLH – IS A TERM THAT MAY BE FAMILIAR TO YOU, AND REFERS TO IMMEDIATELY DANGEROUS TO LIFE AND HEALTH. WHEN A</p>

FOSTER ON LINE  
NARRATION SCRIPT

MODULE: 3

SLIDE	NARRATION
1	WELCOME TO MODULE 3 – RADIATION AND BASIC TERMINOLOGY.
2	THIS MODULE IS A SHORT PRIMER ON RADIATION BASICS. WE HAVE TRIED TO INCLUDE ONLY THE INFORMATION YOU WILL NEED TO KNOW, WITHOUT A LOT OF EXTRA TERMINOLOGY.
3	<p>FIRST, IT IS NECESSARY TO UNDERSTAND THAT WHEN WE TALK ABOUT RADIATION IN THIS COURSE, WE ARE TALKING ABOUT IONIZING RADIATION. IONIZING RADIATION HAS THE ABILITY TO CHANGE THE STRUCTURE OF OTHER ATOMS. THE BASIC TYPES OF IONIZING RADIATION ARE ALPHA, BETA, AND GAMMA.</p> <p>THERE IS A FOURTH TYPE, NEUTRON, BUT IT IS SO UNLIKELY THAT YOU WOULD BE EXPOSED TO THIS, THAT WE DO NOT INCLUDE IT IN THE BASICS.</p> <p>JUST FOR YOUR UNDERSTANDING, NON-IONIZING RADIATION IS SOMETHING WE ENCOUNTER ALL THE TIME, INCLUDING LIGHT, HEAT, AND RADIO WAVES.</p>
4	<p>THE FIRST TYPE OF RADIATION WE MAY ENCOUNTER IS ALPHA.</p> <p>ALPHA RADIATION CONSISTS OF SUB-ATOMIC PARTICLES</p> <p>THEY HAVE A RELATIVELY LOW ENERGY LEVEL</p> <p>OUTSIDE OF YOUR BODY, ALPHA POSES VERY LITTLE RISK TO YOU</p> <p>AS IT CAN EVEN BE STOPPED BY A SINGLE SHEET OF PAPER – WHICH MAKES IT EVEN HARD TO DETECT WITH A METER.</p> <p>THINK OF BEING EXPOSED TO ALPHA AS BEING STRUCK WITH COTTON BALLS –</p> <p>THEY MAY NOT BE ABLE TO CAUSE YOU ANY HARM,</p> <p>BUT YOU WOULDN'T WANT TO EAT THEM!</p>