

SUBPART I Personal Protective Equipment (PPE)

1910.132.-138

T8 CCR §3380 Personal
Protective Equipment

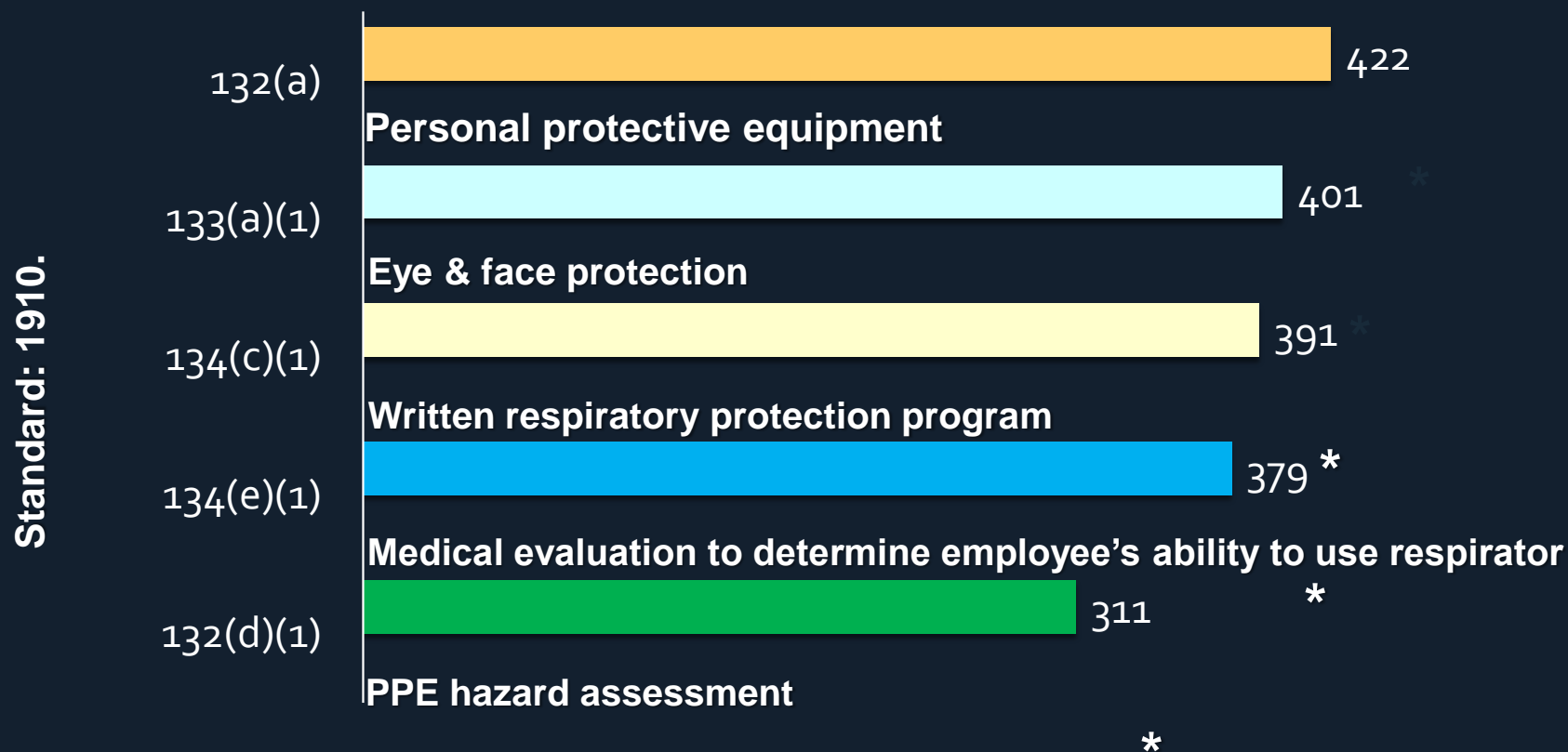


Objectives

- Explain the general requirements for personal protective equipment.
- The PPE Hazard Assessment
- Introduce Types of Eye and Respiratory Protection
- Other Types of PPE



Subpart I - Personal Protective Equipment (1910.132 - 139)



***Average number of Federal OSHA citations issued between 2009 and 2013**

<https://www.youtube.com/watch?v=q2yAHDkC6Nw>



1910.132 General Requirements

- (a) Protective equipment, including personal protective equipment for:
 - Eyes,
 - Face,
 - Head, and extremities,
 - Protective clothing,
 - Respiratory devices, and
 - Protective shields and barriers shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment



1910.132 General Requirements

- (a) Includes:
 - Chemical hazards,
 - Radiological hazards, or
 - Mechanical irritants
- Encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact.

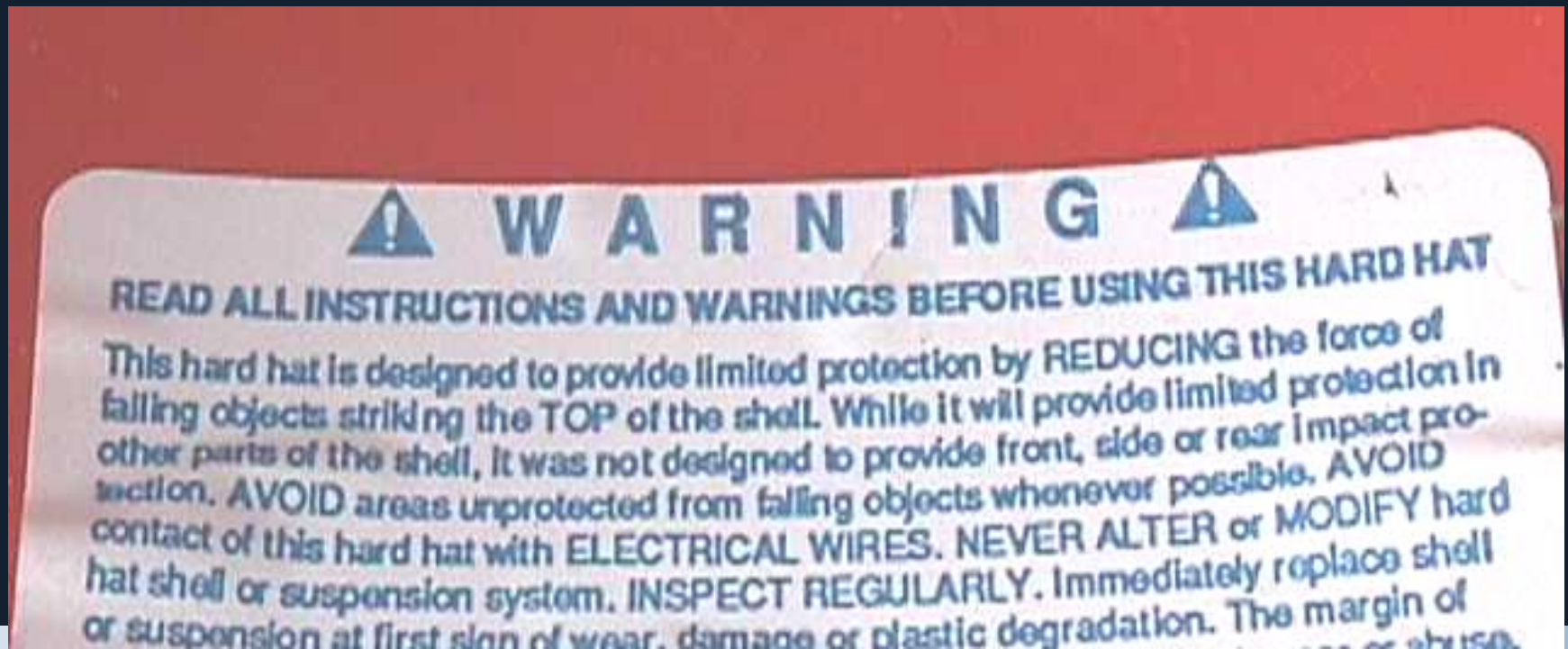
1910.132(b) Employee Owned Equipment

- Where employees provide their own protective equipment, the employer shall be responsible to assure its adequacy, including proper maintenance, and sanitation of such equipment.



1910.132(c) Design

- All personal protective equipment shall be of safe design and construction for the work to be performed.
- Must meet ANSI standards.



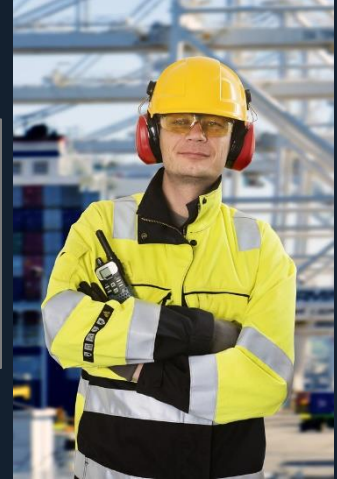
1910.132(d) Hazard Assessment

- (1)The employer shall **assess the workplace to determine if hazards are present** which necessitate the use of personal protective equipment (PPE)
- If hazards are present the employer shall:
 - (i)Select, and have each affected employee use, the types of PPE that will protect the affected employee from the hazards identified in the **hazard assessment**



Safety 101 – Personal Protective Equipment

https://www.youtube.com/watch?time_continue=2&v=rp5IPNAfi_M

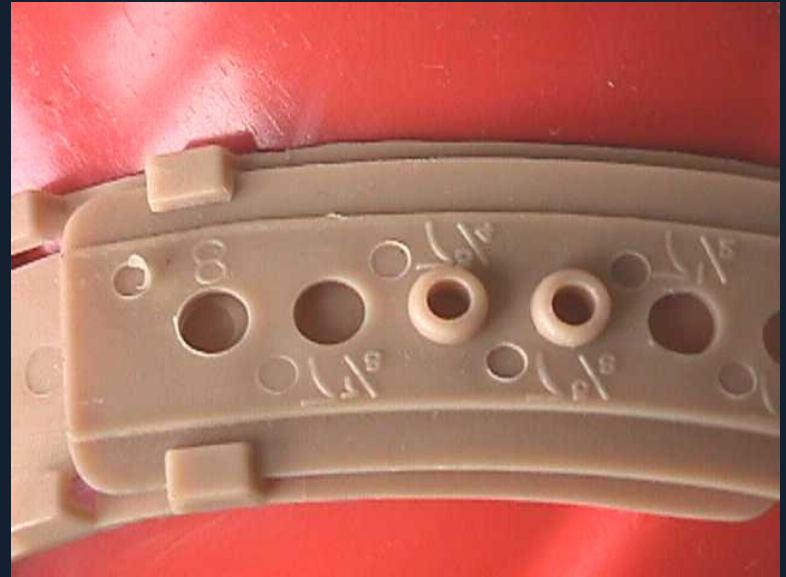


When is PPE necessary?



1910.132(d) Hazard Assessment

- (1)(ii) Communicate selection decisions to each affected employee; and,
- (1)(iii) Select PPE that properly fits each affected employee.



1910.132(d) Hazard Assessment


- (2)The employer shall verify that the required workplace hazard assessment has been performed through a **written certification** that identifies:
 - The workplace evaluated;
 - The person **certifying** that the evaluation has been performed;
 - The date(s) of the hazard assessment; and,
 - Which identifies the document as a certification of hazard assessment


PPE HAZARD ASSESSMENT FORM


I am reviewing (check the appropriate box):

<input type="checkbox"/> A worksite	Specify location: _____
<input type="checkbox"/> A single employee's job description	Name of employee: _____
	Position Title: _____
<input checked="" type="checkbox"/> A job description for a class of employees	Position Titles: _____
	Location: _____






Your Name: _____	Department/Division: _____	Date: _____
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	EYE HAZARDS: Tasks that can cause eye injury include: working with chemicals or acids; UV lights; chipping, sanding, or grinding; welding; furnace operations; and metal and wood working.	
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>
	Chemical Exposure <input type="checkbox"/>	
	High Heat/Cold <input type="checkbox"/>	
	Dust/Flying Debris <input type="checkbox"/>	
	Impact <input type="checkbox"/>	
	UV/IR Radiation <input type="checkbox"/>	
Other: _____		
<i>Required PPE</i>		

	HEAD/NECK/FACE HAZARDS: Tasks that can cause head/neck/face injury include: working below other workers who are using tools or materials that could fall, working on energized electrical equipment or utilities, and working in trenches or confined spaces.	
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>
	Chemical Exposure <input type="checkbox"/>	
	Dust/Flying Debris <input type="checkbox"/>	
	Impact <input type="checkbox"/>	
	UV/IR Radiation <input type="checkbox"/>	
	Electrical Shock <input type="checkbox"/>	
Other: _____		
<i>Required PPE</i>		

	FOOT HAZARDS: Tasks that can cause foot injury include: exposure to chemicals or acids, welding or cutting, materials handling, renovation or construction, and electrical work.	
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>
	Chemical Exposure <input type="checkbox"/>	
	High Heat/Cold <input type="checkbox"/>	
	Impact/Compression <input type="checkbox"/>	
	Electrical <input type="checkbox"/>	
	Puncture <input type="checkbox"/>	
Slippery/Wet Surfaces <input type="checkbox"/>		
Other: _____		
<i>Required PPE</i>		

PPE HAZARD ASSESSMENT CERTIFICATE

	HAND HAZARDS: Hand injury can be caused by: work with chemicals or acids, exposure to cut or abrasion hazards (for example, during demolition, renovation, woodworking, or food service preparation), work with very hot or cold objects or materials, and exposure to sharps.		
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>	<i>Required PPE</i>
	Chemical Exposure <input type="checkbox"/>		
	High Heat/Cold <input type="checkbox"/>		
	UV/IR Radiation <input type="checkbox"/>		
	Electrical Shock <input type="checkbox"/>		
	Puncture <input type="checkbox"/>		
Cuts/Abrasion <input type="checkbox"/>			
Other: _____			
	BODY HAZARDS: Injury of the body (torso, arms, or legs) can occur during: exposure to chemicals, acids, or other hazardous materials; abrasive blasting; welding, cutting, or brazing; chipping, sanding, or grinding; use of chainsaws or similar equipment; and work around electrical arcs.		
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>	<i>Required PPE</i>
	Chemical Exposure <input type="checkbox"/>		
	High Heat/Cold <input type="checkbox"/>		
	Impact/Compression <input type="checkbox"/>		
	Electrical Arc <input type="checkbox"/>		
	Cuts/Abrasion <input type="checkbox"/>		
Other: _____			
	FALL HAZARDS: Personnel may be exposed to fall hazards when performing work on a surface with an unprotected side or edge that is 4 feet or more above a lower level, or 10 feet or more on scaffolds. Fall protection may also be required when using vehicle man lifts, elevated platforms, tree trimming, performing work on poles, roofs, or fixed ladders.		
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>	<i>Required PPE</i>
	Fall hazard <input type="checkbox"/>		
	NOISE HAZARDS: Personnel may be exposed to noise hazards when working in mechanical rooms; machining; grinding; sanding; cage washing; dish washing; working around pneumatic equipment, grounds equipment, generators, chillers, motors, saws, jackhammers, or similar equipment.		
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>	<i>Required PPE</i>
	Noise hazard <input type="checkbox"/>		
	RESPIRATORY HAZARDS: Personnel may be exposed to respiratory hazards that require the use of respirators: during emergency response, when using certain chemicals outside of a chemical fume hood; when working with hazardous powders; when entering fume hood plenums, when working with animals; when applying paints or chemicals in confined spaces; when welding, cutting, or brazing on certain metals; and when disturbing asbestos, lead, silica, or other particulate hazards.		
	<i>Check the appropriate box for each hazard:</i>	<i>Description of hazard(s):</i>	<i>Required PPE</i>
	Chemical exposure <input type="checkbox"/>		
	Particulate exposure <input type="checkbox"/>		
Other: _____			

I certify that the above hazard assessment was performed to the best of my knowledge and ability, based on the hazards present on this date.

_____ (signature)

1910.132(e) Defective and damaged equipment

- Defective or damaged personal protective equipment shall not be used.



1910.132(f) Training

- (1) The employer must train employees before issuing PPE
- Each employee trained to know at least the following:
 - (i) When PPE is necessary;
 - (ii) What PPE is necessary;
 - (iii) How to properly don, doff, adjust, and wear PPE;
 - (iv) The limitations of the PPE; and,
 - (v) The proper care, maintenance, useful life and disposal of the PPE.



1910.133 Eye and face protection

- (a)(1) Ensure that each affected employee uses appropriate eye or face protection when exposed to eye or face hazards from:
 - Flying particles,
 - Molten metal,
 - Liquid chemicals, acids or caustic liquids,
 - Chemical gases or vapors, or potentially injurious light radiation



1910.133 Eye and face protection

- (a)(2) Ensure that each affected employee **uses** eye protection that provides side protection when there is a hazard from flying objects*



***Detachable side protectors (e.g. clip-on or slide-on side shields) meeting the pertinent requirements of this section are acceptable.**

1910.133 Eye and face protection

- (a)(3) Ensure that each employee who wears prescription lenses while engaged in operations that involve eye hazards
 - Wears eye protection that incorporates the prescription in its design, or
 - Wears eye protection that can be worn over the prescription lenses
 - Without disturbing the proper position of the prescription lenses or the protective lenses



Protective eye and face devices shall comply with ANSI Z87.1



Z87.1



PROTECTION FROM ULTRA VIOLET RADIATION

To protect your eyes from harmful exposure to sunlight, you should be on the lookout for lenses that absorb $> 99.9\%$ of UVA and UVB radiation up to 385nm. Some tinted styles protect up to $> 400\text{nm}$.



<https://www.youtube.com/watch?v=pfAZwGZS-Hk>



Respiratory Protection

1910.134

T8CCR §5144. Respiratory Protection



1910.134(a) Permissible practice

- 1st Priority: Engineering controls:
 - Enclosure or confinement of the operation,
 - General and local ventilation, and
 - Substitution of less toxic materials
- Only where engineering controls are not feasible should respirators be used



1910.134(a)(2) Employers responsibilities

- Respirators:
 - NIOSH approved
 - Provided by the employer
 - Must provide the respirators which are applicable and suitable for the purpose intended
 - The employer is responsible for the establishment and maintenance of a respiratory protection program



1910.134(c) Respiratory protection program

- Requires worksite-specific procedures and elements for required respirator use
- The program must be administered by a suitably trained program administrator*



1910.134(c) Respiratory protection program

- Where respirators are necessary:
 - Written program
 - Worksite-specific procedures
 - Required elements:
 - Training
 - Fit testing
 - Medical evaluations
 - Procedures for respirator selection
 - Procedures for routine & emergency use



1910.134(c)(2) Where respirator use is not required

- If voluntary respirator use is permissible, provide the respirator users with the information contained in **Appendix D** and,
- Establish and implement those elements of a written respiratory protection program* necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator
- That the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user



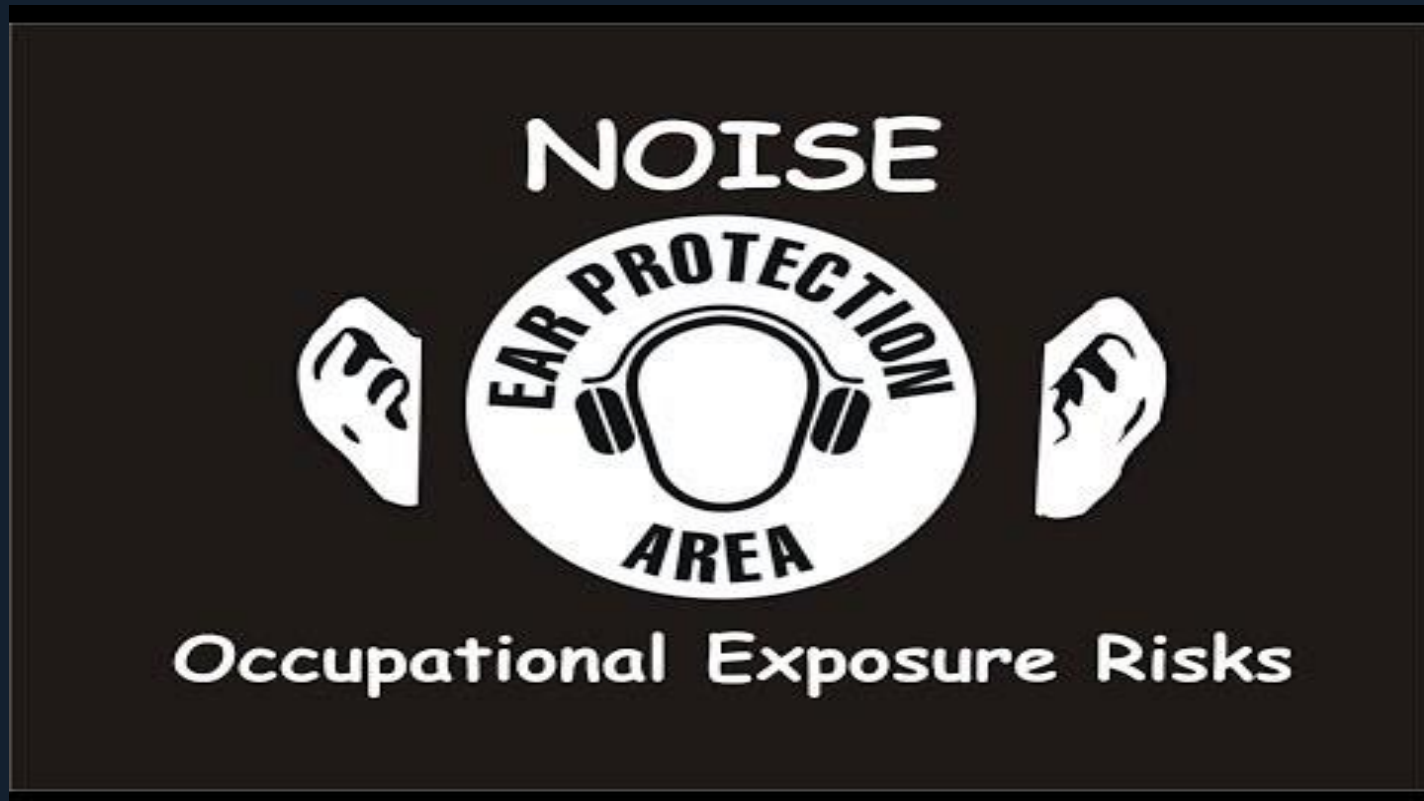
***Written program not required for voluntary use of dust masks**

Other PPE

- Hearing Protection
- Body Protection
- Knee Protection
- Electrical Worker PPE



<https://www.youtube.com/watch?v=izMP7nM2APM>



QUESTIONS?

