References:
WAC 246-366-120: Lighting
2023 Washington Sustainable Schools Protocol Indoor Environmental Quality Daylighting and Views, Electric Lighting Quality
Department of Ecology: PCB Light Replacement in Schools
How to Dispose of Fluorescent Light Ballast Waste that Contains PCBs
Washington State DANGEROUS WASTE REGULATIONS
eCFR :: 40 CFR 761.125 -- Requirements for PCB spill cleanup.
eCFR :: 40 CFR 761.62 -- Disposal of PCB bulk product waste.
Fact Sheet for PCBs in Fluorescent Light Ballasts
Region 10 PCB Program | US EPA
Polychlorinated Biphenyl (PCB)-Containing Fluorescent Light Ballasts (FLBs) in School Buildings | US EPA
Practical Actions for Reducing Exposure to PCBs in Schools and Other Buildings (epa.gov)
Disposal of Fluorescent Light Ballasts (FLB) | US EPA
Cleaning Up a Broken CFL | US EPA
Lights & lamps - Washington State Department of Ecology
Ultraviolet Radiation Burns from High Intensity Metal Halide and Mercury Vapor Lighting Remain a Public Health Concern | FDA
Illuminating Engineering Society - Illuminating Engineering Society (ies.org)

I. Lighting		**WAC or other Code Reference**	**Standard/ Recommended Practice**	**Plan Review**	**Reason for Change**
I 001	Minimum light intensity of 10 foot candles, from general, task, or natural lighting shall be provided in non-instructional areas including auditoriums, lunchrooms, assembly areas, toilet and store rooms, corridors, and stairs. Maintained light intensities shall be provided as measured 30 inches above the floor or on working or teaching surfaces. General, task and/or natural lighting may be used to maintain the minimum lighting intensities.	246-366-120(1)		X	
I 002	Minimum light intensity of 20 foot candles, from general, task, or natural lighting shall be provided in gymnasiums including main and auxiliary spaces, and shower and locker rooms. Maintained light intensities shall be provided as measured 30 inches above the floor or on working or teaching surfaces. General, task and/or natural lighting may be used to maintain the minimum lighting intensities.	246-366-120(1)		X	
I 003	Minimum light intensity of 30 foot candles, from general, task, or natural lighting shall be provided in kitchen areas including food storage and preparation rooms. Maintained light intensities shall be provided as measured 30 inches above the floor or on working or teaching surfaces. General, task and/or natural lighting may be used to maintain the minimum lighting intensities. Note: The Food Code requires at least 50 foot candles (540 lux) at a surface where a FOOD EMPLOYEE is working with FOOD or working with UTENSILS or EQUIPMENT such as knives, slicers, grinders, or saws where EMPLOYEE safety is a factor.	246-366-120(1) 246-215-06340 (3)		X	

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I 004	Minimum light intensity of 30 foot candles, from general, task, or natural lighting shall be provided in instructional areas including study halls, lecture rooms, and libraries. In rooms with computers, or during audio-visual presentations, lighting may be reduced. Maintained light intensities shall be provided as measured 30 inches above the floor or on working or teaching surfaces. General, task and/or natural lighting may be used to maintain the minimum lighting intensities.	246-366-120(1)		X	
I 004a	Use of light fixture covers to reduce classroom lighting below 30 foot candles is not allowed. Exceptions may be made for special needs classrooms except during reading time or when fine work is being done. Covers must meet fire code standards and be removable.	246-366-120(1)			Clarification of frequent issue.
I 005	Minimum light intensity of 50 foot candles, from general, task or natural lighting shall be provided in special instructional areas where safety is of prime consideration or fine detail work is done including: sewing rooms, laboratories (including chemical storage areas), shops (Career and Technical Education) ~~(voc ed) trade, industrial shops~~, drafting rooms, and ~~visual & performing~~ arts and craft rooms. Maintained light intensities shall be provided as measured 30 inches above the floor or on working or teaching surfaces. General, task and/or natural lighting may be used to maintain the minimum lighting intensities.	246-366-120(1)		X	Align language with rule.
I 006	Any time a building is occupied, the path of egress shall be illuminated at an intensity of not less than 1 foot candle at the floor level. (Exception: 0.2 foot candle during a performance in a theater or auditorium if it will be automatically restored upon activation of the fire alarm system.) Emergency (exit) lighting may never be turned off.	~~UBC 1003.2.9.1~~ 51-50 IBC 1008.2.1		X	
I 007	Excessive brightness and glare shall be controlled in instructional areas. Surface contrasts and glare shall not cause excessive eye accommodation or eye strain problems.	246-366-120(2)		X	
I 008	Lighting shall be provided in a manner which minimizes shadows and other lighting deficiencies on work and teaching surfaces.	246-366-120(3)		X	
I 009	NOTE: ~~The Lighting Design Lab is an excellent resource for all lighting issues. See website: www.lightingdesignlab.com Another good r~~Resource: ~~is~~ the Illuminating Engineering Society of America. ~~Website: http://www.iesna.org/~~	~~OSPI and DOH~~		X	The Lighting Design Lab is going away.

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I 010	Inspect all fluorescent light ballasts ~~for~~ to identify those that may contain ~~PCB content,~~toxic polychlorinated biphenyls (PCBs). ~~being certain to wear rubber gloves and goggles. Identify PCB ballasts for future replacement.~~ If lighting was installed prior to 1980, contains magnetic ballasts, and uses T12 (1.5 inch tubular) fluorescent lamps, it is highly likely to contain PCBs and should be removed and replaced even if still intact. Some PCB ballasts were left in fixtures and ceilings after lighting upgrades rewired around them and are still at risk of failing and leaking. Wear chemical resistant gloves and eye protection during inspection and stop work if leakage is noted (see 1011). For inspection guidance please see: Polychlorinated Biphenyl (PCB)-Containing Fluorescent Light Ballasts (FLBs) in School Buildings | US EPA ~~Imost all fluorescent light fixtures made before July 1979 contain small amounts of highly concentrated PCB's in their ballasts. that can leak PCB contaminated oil. See website: www.epa.gov/pcb~~	~~EPA~~	EPA ECY		
I 011	If leaking magnetic ballasts are found that could contain PCBs, shut off power to the light, close the room off, and prevent occupancy. Call Region 10 EPA for guidance and next steps. To prevent exposure of school district staff we recommend identifying a contractor with experience and certification in hazardous chemical management and abatement. If district staff who have hazardous waste training are available they can follow guidance available at the EPA website for less complex clean ups: ~~Clean all PCB leakage, including any oil-like film, and replace all leaking ballasts. Dispose of leaking ballasts and cleaning materials in accord with EPA and DOE regulations. Wearing gloves and goggles is important for personal protection as PCB's are absorbed through the skin. Call 1-800-424-4372 or see website: www.epa.gov/r10earth/pcb.htm~~	40 CFR Part 761	EPA DOH ECY		DOH/Ecology no longer recommend that school district maintenance staff handle leaking PCB material. An abatement company is a safer choice.
I 012	Under the Federal Toxic Substances Control Act (TSCA), a leaking fluorescent light ballast containing PCB's must be packaged in a container approved for PCB disposal, marked "contains PCB's" and have an accompanying manifest. It must be shipped by an authorized PCB transporter to a licensed PCB disposal facility. We recommend managing ALL ballasts known or suspected to contain PCBs, whether intact or not, under TSCA labeling and manifesting regulations. This ensures the safe destruction of PCBs compared to a landfill. Management under TSCA will exclude the ballasts from your dangerous waste reporting to Washington Ecology.	TSCA 40 CFR Part 761 Ecology, EPA	~~Ecology, EPA~~		Adding intact ballasts to TSCA waste management, to keep PCB ballasts out of landfills. Updated links, including a short Ecology publication recommending TSCA management of all ballasts.

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I 013	Fluorescent lights, and some other types of lights and lamps, contain toxic chemicals that fall under the dangerous waste regulations. Follow guidance for cleanup and disposal from the Department of Ecology and EPA. For questions about designation of waste or compliance with the dangerous waste regulations call your Department of Ecology regional office.	173-303-071	Ecology EPA DOH		
I 014	Broken and unshielded high intensity metal halide and mercury vapor light bulbs cause eye and skin injuries, particularly in school gymnasiums. To prevent these incidents from recurring, • replace open or wire grid fixtures with enclosed fixtures, or • replace non-self-extinguishing "R" type high intensity metal halide and mercury vapor light bulbs used in open or wire grid fixtures with self-extinguishing "T" type light bulbs. Since 2005 the National Electrical Code requires high intensity metal halide and mercury vapor light bulbs installed in newly constructed or renovated indoor sports or all-purpose facilities be installed in fixtures that are fully enclosed by a lens of glass or plastic to protect the bulb from breakage.		FDA	x	
I 014a	Note: Any facility that has interior metal halide or mercury vapor lighting should begin a plan to replace them with comparable LED lighting. Utility rebates are generally available statewide, the energy and maintenance savings are significant, and the light quality is much better		Seattle City Light		
I 015	Note: 2023 Washington Sustainable Schools Protocol Indoor Environmental Quality Sections on Daylighting and Views and on Electric Lighting Quality offer more information on lighting for health and energy conservation.		2023 WSSP IEQ 1 and 2		