California Energy Commission
STAFF REPORT

AMENDMENTS TO APPLIANCE EFFICIENCY REGULATIONS

Initial Study and Proposed Negative Declaration for Toilets, Urinals, Faucets, HVAC Air Filters, Florescent Deep Dimming Ballast, and Heat Pump Water Chilling Packages

California Code of Regulations
Title 20, Sections 1601 – 1608

Docket # 15-AAER-1

CALIFORNIA
ENERGY COMMISSION
Edmund G. Brown, Jr., Governor

February 2015
CEC-400-2015-005

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NEGATIVE DECLARATION

2015 Amendments to the Appliance Efficiency Regulations, California Code of Regulations, Title 20 Sections 1601-1608

Public Resources Code § 25402, subdivision (c)(1), mandates that the California Energy Commission (the Energy Commission) reduce wasteful, uneconomic, inefficient, or unnecessary energy use by prescribing, through regulation, standards for minimum efficiency levels for appliances. The Energy Commission first adopted appliance efficiency regulations in 1976 and periodically adopts new or revised standards. The Energy Commission is proposing to adopt new Appliance Efficiency Regulations (Section 1601 – 1608 of Title 20 of the California Code of Regulations) efficiency standards for Toilets, Urinals, Faucets, HVAC Air Filters, Florescent Deep Dimming Ballast, and Heat Pump Water Chilling Packages.

The California Environmental Quality Act (CEQA), found in Public Resources Code Sections 21000 et seq., requires public agencies to identify and consider the potential environmental effects of their "projects," as that term is defined, and when feasible to mitigate any related adverse environmental consequences. The proposed adoption of these regulations is a discretionary action undertaken by a public agency and has the potential to result in a direct or indirect physical change in the environment. Thus, the proposed adoption constitutes a "project" under CEQA (see Pub. Res. Code section 21065). The Energy Commission has prepared this Initial Study to assess the potential significant effects of the proposed regulations on the environment.

The proposed regulations are contained in the following document::

Proposed Amendments to Appliance Efficiency Regulations (Express Terms), California Code of Regulations, Title 20, Sections 1601 through 1608, 2015 Appliance Efficiency Rulemaking, Toilets, Urinals, Faucets, HVAC Air Filters, Florescent Deep Dimming Ballast, and Heat Pump Water Chilling Packages, February 9, 2015, Docket Number 15-AAER-1.

The proposed regulations are summarized in

> *Notice of Proposed Action* and is available with the Express Terms at http://www.energy.ca.gov/appliances/2015-AAER-1/rulemaking/documents/index.html

The potential environmental impacts of the proposed regulations are analyzed in the attached document:

Initial Study and Proposed Negative Declaration - Amendments to Appliance Efficiency Regulations, California Code of Regulations, Title 20, Sections 1601 – 1608, February 2015, Docket # 15-AAER-1.

All of the documents listed above are available on the Energy Commission's website, http://www.energy.ca.gov/appliances/2015-AAER-1/rulemaking/ or by phone at

(916) 654-4147, or by electronic mail from the Energy Commission's Appliances and Existing Buildings Office, by submitting a request to Angelica.Romo@energy.ca.gov.

FINDING OF NO SIGNIFICANT IMPACT

The Initial Study demonstrates, and the Energy Commission concludes, that the proposed regulations for water, natural gas, and electricity efficiency standards and other regulations for toilets, urinals, faucets, HVAC air filters, florescent deep dimming ballast, and heat pump water chilling packages will not have any significant adverse effect on the environment. The attached Initial Study, Environmental Checklist, and Proposed Negative Declaration support this finding.

_____ DATE: _____
ROBERT B. WEISENMILLER, Ph.D.
Chairman

_____ DATE: _____
J. ANDREW MCALLISTER, PH.D.
Commissioner

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CHAPTER 1: Introduction

The Energy Commission was established in 1974 by the Warren-Alquist Act to develop and implement energy policy for the state of California. One of the Energy Commission's mandates is to promote water and energy efficiency through a variety of means, including efficiency standards for appliances. (Pub. Res. Code Section 25402(c)([1)). The Energy Commission adopted its first appliance efficiency standards in 1976 and has periodically revised those, and adopted new regulations. The current regulations include provisions on testing of appliances to determine their efficiency, reporting of data by manufacturers to the Energy Commission, establishing mandatory minimum efficiency levels, and compliance and enforcement procedures, as well as general provisions on the scope of the regulations and definitions.

The proposed amendments to the regulations include efficiency requirements for toilets, urinals, faucets, HVAC air filters, florescent deep dimming ballast, and heat pump water chilling packages. The scope of the proposed regulations includes residential and commercial toilets except those designed for correctional facilities, jails, and mental health facilities, all urinals except trough type, all residential lavatory faucets, all kitchen faucets, and all public lavatory faucets. The proposed scope includes energy efficiency standards for deep dimming ballast, test and labeling requirements for HVAC air filters, and test and list requirements for heat pump water chilled packages.

Implementation of the proposed regulations will result in an estimated reduction in water consumption of about 88.6 billion gallons, savings of about 252 million therms of natural gas, and reduction of 1,996 gigawatt-hours of (GWh) per year in electricity consumption, after the existing toilets, urinals, faucets, HVAC air filters, florescent deep dimming ballast, and heat pump water chilling packages stock is replaced. It is estimated that the concomitant reduction in power plant operation in California would reduce criteria air pollutants (nitrous oxides (NO_x) and sulfur oxides (SO_x)), particulate matter less than 10 and 2.5 microns in diameter (PM10, PM2.5), and proposed regulations are estimated to avoid 0.26 million tons of carbon dioxide (CO_2) in 2016 and 2.3 million tons in 2025. The cumulative benefit of CO_2 reductions for the proposed standards is 12.6 million tons.

The California Environmental Quality Act (CEQA), found in Public Resources Code Sections 21000 et seq., requires public agencies to identify and consider the potential environmental effects of their "projects," as that term is defined, and when feasible to mitigate any related adverse environmental consequences. This proposed adoption is a discretionary decision undertaken by a public agency and has the potential to result in direct or indirect physical changes in the environment. Thus, it constitutes a "project" under CEQA (see Pub. Resources Code Section 21065). Therefore, the Energy Commission has prepared this Initial Study to assess the potential significant effects of the proposed regulations on the environment.

CHAPTER 2: Description of Proposed Project

Project Name

This project is a statewide rulemaking proceeding titled: Toilets, Urinals, Faucets, HVAC Air Filters, Florescent Deep Dimming Ballast, and Heat Pump Water Chilling Packages Standards, Energy Commission Docket Number 15-AAER-1.

Project Description and Location

The project is a proposal for statewide regulations to establish or amend the levels of efficiency required for toilets, urinals, faucets, HVAC air filters, florescent deep dimming ballast, and heat pump water chilling packages, which are not covered by federal appliance efficiency standards. The required new efficiency standards apply to newly manufactured products and are attainable through normal manufacturing processes.

The proposed regulations cover both consumer and non-consumer toilets, urinals, faucets, HVAC air filters, florescent deep dimming ballast, and heat pump water chilling packages, as those terms are defined in federal law, and will apply to residential and commercial products manufactured on or after May 1, 2016. This rulemaking also includes federal updates, clarifications and/or corrections to the existing Appliance Efficiency Regulations based on the inclusion of these new standards.

The proposed regulations for toilets, urinal, and faucets require measurement of water consumption and certification of the appliances with the Energy Commission before can be sold or offer for sale in California.

The Energy Commission also proposes to adopt HVAC Air filter labeling requirements, test and list requirements for the heat pump water chilling packages, and efficiency standards for fluorescent deep dimming ballast. The proposed standards for the above described appliance will have an effective date of May 1, 2016.

The proposed regulations that are the project for purposes of the study are contained in: *Proposed Amendments to Appliance Efficiency Regulations (Express Terms), California Code of Regulations, Title 20, Sections 1601 through 1608, May 2015 Appliance Efficiency Rulemaking, for Toilets, Urinals, Faucets, HVAC Air Filters, Florescent Deep Dimming Ballast, and Heat Pump Water Chilling Packages,* Docket Number 15-AAER-1.

More detailed description and analysis of the project is contained in:

Staff Report Staff Analysis of Toilets, Urinals, Faucets, CEC-400-2015-008, *and staff report of HVAC Air Filters, Florescent Deep Dimming Ballast, and Heat Pump Water Chilling Packages* CEC-400-2015-007

All of the documents associated with this rulemaking are available at:

http://www.energy.ca.gov/appliances/2015-AAER-1/rulemaking/documents/index.html or by electronic mail from the Energy Commission's Appliances and existing Buildings Office. The office can be reached by contacting Angelica Ramos at (916) 654-4147, or at Angelica.Romo@energy.ca.gov

CHAPTER 3: Energy and Environmental Impacts of the Proposed Project

Energy Impacts

The water, natural gas, and energy efficiency standards being proposed will reduce the future demand for water, natural gas, and energy. The proposed changes to the Appliance Efficiency Regulations reduce the water, natural gas use resulting from the use of water in toilet, urinal, and faucets and energy use in fluorescent deep dimming ballast, and HAVC air filters, and heat pump water chilling packages with no significant change in the energy or materials needed to manufacture the appliances. The annual reduction in water consumption after the stock turnover would be 88.6 billion gallons per year and reduction of 252 million therms of natural gas consumption and would reduce electricity consumption by 1,996 GWh. This reduction in water consumption would lead to lesser flow to the sewerage treatment plants and would save electricity in pumping sewerage in the plants. Staff has not conducted any quantitative analysis on the estimated reduction in electricity for pumping systems and have not provided reduction numbers in this report. Reduction in electricity would lead to a reduced need for new power plants, use of fossil fuels for those plants, and new transmission lines.

Environmental Impacts

The Energy Commission completed the environmental checklist that is contained in the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq., Appendix G) to address the potential environmental effects of the proposed regulations. The impacts to California, which are outlined in Chapter 5, indicate that implementing the proposed amendments will have no adverse effect on the environment. In fact, the new standards will result in environmental benefits due to reductions usage of lesser chemicals for sanitizing water and reduction in electricity use in water and sewage pumping, and consequent emissions reductions in California and the western United States.

The proposed regulations are estimated to avoid 0.26 million tons of carbon dioxide (CO2) in 2016 and 2.3 million tons in 2025. The cumulative benefit of CO2 reductions for the proposed standards is 12.6 million tons. The higher alternative standard increases this value to 16.9 million tons, while the lower alternative cuts the CO2 benefit to 11.9 million tons. This emission reduction contributes to AB 32 goals to reduce greenhouse gas production.

Two types of benefits were estimated for the carbon dioxide emissions reductions. The first is an estimate of avoided global damages using a federal social cost of carbon value of $43 per ton. Total avoided damages for the 10-year period under proposed standards equals $429 million. A second value estimated is the avoided cost of purchasing CO2 allowances for California's Cap-and-Trade Program. The value for CO2 allowance savings was estimated to be $120 million, based upon an assumed allowance value of $12 per ton.

These reductions are estimated are available in "Revised Standardized Regulatory Impact Assessment Of 2014 Proposed Appliance Efficiency Regulations" available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203667_20150213T140234_Revised_Standardized_Regulatory_Impact_Assessment_of_2014_Propo.pdf

CHAPTER 4: No Project Alternative

If the Energy Commission does not adopt energy efficiency standards for toilets, urinal, faucets, HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages as proposed in this project, California would forego the water, natural gas, and electricity energy savings that would result from the proposed regulations. The proposed standards will provide water savings of about 460 billion gallons and monetary savings of $1.56 billion to California consumers over a 10-year period from the effective date of the regulations. The proposed regulations will reduce electricity consumption by about 10,993 gigawatt-hours between 2016 and 2025, (GWh) and provide consumer savings of $877 million over that period. Natural gas savings are estimated to be about 1,410 million therms between 2016 and 2025 and would save consumers $1.29 billion. Combined utility bill savings from the proposed regulations will be about $3.7 billion between 2016 and 2025.

The annual release of criteria air pollutants (NO_x, SO_x, PM10, PM 2.5, and CO) would continue from power plants that generate electricity, both in California and across the western United States, would be avoided by the proposed regulations. The proposed regulations are estimated to avoid 263,000 tons of carbon dioxide (CO_2) in 2016 and 2.3 million tons in 2025.

These estimated savings are cumulative. Toilets, urinal, faucets, HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages sold in one year continue to provide energy savings in future years, while each future year also contains new sales of these products. The savings and benefits are calculated up to the point where compliant products begin replacing noncompliant products.

CHAPTER 5: Environmental Checklist

Table 1: Lead and Responsible Agencies

Project Title	The project title is toilets, urinal, faucets, HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages is contained in the *Proposed Amendments to Appliance Efficiency Regulations (Express Terms), California Code of Regulations, Title 20, Sections 1601 through 1608, February 13, 2015 Appliance Efficiency Rulemaking, Phase II, Docket Number 15-AAER-1*
Lead agency name and address	California Energy Commission–MS 25, 1516 Ninth Street, Sacramento, California 95814
Contact person and phone number	CEQA Manager, Ken Rider, Appliances and Existing Buildings Office, Efficiency Division, Ken.Rider@energy.ca.gov (916) 654-5006 Project Manager, Harinder Singh, Appliances and Existing Buildings Office, Efficiency Division, Harinder.Singh@energy.ca.gov (916) 654-4091
Project description	The project is a proposal for statewide regulations to establish the levels of efficiency required for certain toilets, urinal, faucets, HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages, which are not covered by federal appliance efficiency standards. The required new efficiency standards apply to newly manufactured products and are attainable through normal manufacturing processes.
Responsible agencies	None
Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement)	None

Environmental Factors Potentially Affected

For each of the environmental factors checked below, there is likely to be a positive environmental impact due to the decrease in power generation associated with reduced electrical demand by the use of more efficient appliances. The Energy Commission's analysis reveals no significant adverse impacts.

Table 2: Potentially Affected Areas

	I. Aesthetics	x	VII. Greenhouse Gas Emissions		XIII. Population/Housing
	II. Agriculture Resources	x	VIII. Hazards & Hazardous Materials		XIV. Public Services
x	III. Air Quality	x	IX. Hydrology/ Water Quality		XV. Recreation
x	IV. Biological Resources		X. Land Use/ Planning		XVI. Transportation/Traffic
	V. Cultural Resources		XI. Mineral Resources	x	XVII. Utilities/Service Systems
	VI. Geology/Soils		XII. Noise		XVIII. Mandatory Findings of Significance

Issues

Table 3: Specific Potential Issues

	Potentially Significant Impact	***Less Than Significant with Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) Substantially degrade the existing visual character or quality of the site and its surroundings?				X
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact to aesthetics and no impact on any of the specific concerns listed above. The proposed self-contained lighting control regulations may reduce sources of light and glare and improve nighttime views by automatically shutting off lighting.				
II. AGRICULTURE RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert prime farmland, unique farmland, or farmland of statewide importance (farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g])?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of farmland, to nonagricultural use or conversion of forest land to nonforest use?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact to agricultural resources and no impact on any of the specific concerns listed above. These regulations do not require land, including forest or agriculture land, to convert to other uses.				
III. AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?				X
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?				X
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?				X
d) Expose sensitive receptors to substantial pollutant concentrations?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
e) Create objectionable odors affecting a substantial number of people?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no adverse impact to the air quality concerns listed above. The proposed efficiency standards changes will likely result in reduced power plant operation in California as compared to no standards. Reduced power plant operation will result in a positive air quality impact by a reduction in emissions of criteria and non-criteria pollutants.				
IV. BIOLOGICAL RESOURCES -- Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				X
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				X
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact on biological resources and no impact on the specific concerns listed above. The proposed regulations do not require land, including wetlands or habitat, to convert to other uses.				
V. CULTURAL RESOURCES -- Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?				X
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d) Disturb any human remains, including those interred outside formal cemeteries?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact on any cultural resources and no impact on any of the specific concerns listed above. The proposed regulations do not require land, including burial grounds or archaeological/paleontological sites, to convert to other uses.				
VI. GEOLOGY AND SOILS -- Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				X
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to *Division of Mines and Geology Special Publication 42*.				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
ii) Strong seismic ground shaking?				X
iii) Seismic-related ground failure, including liquefaction?				X
iv) Landslides?				X
b) Result in substantial soil erosion or the loss of topsoil?				X
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?				X
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				X
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact to geology and soils and no impact on the specific concerns listed above. The proposed regulations do not require changes to land use that might affect its seismic or stability characteristics.				
VII. GREENHOUSE GAS EMISSIONS -- Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no adverse greenhouse gas emissions. The proposed regulations are part of State policy to reduce greenhouse gas emissions. The regulations will reduce greenhouse gas emissions by an estimated 1.0 MMTCO2e/yr.				

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
VIII. HAZARDS AND HAZARDOUS MATERIALS -- Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?				X
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
h) Expose people or structures to a significant risk of loss, injury; or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact on hazards and hazardous material. The proposed regulations also do not alter the way in which these materials are disposed.				
IX. HYDROLOGY AND WATER QUALITY -- Would the project:				
a) Violate any water quality standards or waste discharge requirements?				X
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on-or off-site?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-or-off-site?				X
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?				X
f) Otherwise substantially degrade water quality?				X
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				X
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?				X
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				X
j) Inundation by seiche, tsunami, or mudflow?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact on hydrology and water quality and no impact on any of the specific concerns listed above. The proposed regulations do not require land, including flood zones and drainage, to be altered.				
X. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				X
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact to land use and planning and no impact on to any of the specific concerns listed above. The proposed regulations do not require land, including habitat and community development sites, to convert to other uses.				
XI. MINERAL RESOURCES -- Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no adverse impact to mineral resources and no impact on any of the concerns listed above. The proposed regulations do not require land, including mineral rich land, to convert to other uses.				
XII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?				X
b) Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?				X
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no noise impact and no impact on the specific concerns listed above. The self-contained lighting control regulations will reduce the production of noise by limiting the volume of occupancy sensors.				
XIII. POPULATION AND HOUSING -- Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact on population and housing and no impact on any of the concerns listed above.				

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
XIV. PUBLIC SERVICES -- Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				X
Fire protection?				X
Police protection?				X
Schools?				X
Parks?				X
Other public facilities?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will not require the construction or alteration of governmental facilities in a way that will cause significant negative environmental impact. This reduction in water, natural gas, and energy consumption will lead to environmental benefits by reducing greenhouse gas emissions, criteria pollutant production, and the need to site and construct new power plants.				
XV. RECREATION -- Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact on recreation and no impact on any of the specific concerns listed above. The proposed regulations do not require park or recreational land to convert to other uses.				
XVI. TRANSPORTATION/TRAFFIC -- Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?				X
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the country congestion management agency for designated roads or highways?				X
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that result in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X
e) Result in inadequate emergency access?				X
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no impact on transportation/traffic and no impact on any of the specific concerns listed above.				
XVII. UTILITIES AND SERVICE SYSTEMS -- Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				X
e) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the projects projected demand in addition to the providers' existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the projects solid waste disposal needs?				X

	Potentially Significant Impact	***Less Than Significant With Mitigation Incorporation***	***Less Than Significant Impact***	***No Impact***
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no adverse impact on any of the concerns listed above. By reducing water, electricity, and natural gas use, the proposed regulations will have beneficial effects on energy utilities, including increased reliability.				
XIX. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?				X
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?				X
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?				X
COMMENT: Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages will have no adverse impact on any of the concerns listed in the above checklist. No potential exists for any adverse impacts on any animal or human populations, and none of the impacts are cumulatively considerable. Improvements in the water efficiency of toilets, urinal, faucets, and energy efficiency of HVAC air filter, florescent deep dimming ballast, and heat pump water chilling packages resulting from the proposed standards are likely to result in beneficial impacts including reduced water, natural gas, and electricity consumption, reduced power plant operation, and reduced need to build power plants and power lines in the future.				

CHAPTER 6: Determination

On the basis of this evaluation:

X	I find that the proposed project WILL NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signing Officer:

ROBERT P. OGLESBY
Executive Director

Signature_____Date_____

APPENDIX A: Matrix of Proposed Changes to Appliance Efficiency Standards and Resulting Energy and Environmental Effects

Table I: Matrix of Proposed Changes

	Appliance Type	***Existing Standard***	***Proposed Standard or Description of Changes***	***Estimated Energy Effects***	***Potential Environmental Issues***
1	Toilets, Urinal, and Faucets,	Currently there are federal and state standards toilets, urinal, and faucets	The proposed requirements establish 1. All toilets, except those designed for prisons or mental health facilities, shall not consume more than 1.28 gallons per flush and shall have a maximum performance (MaP) score of no fewer than 350 grams. 2. Wall mounted urinals, except trough-type and those designed for prisons or mental health facilities, shall not consume more than 0.125 gallon per flush. 3. Floor mounted urinals shall not consume more than 0.5 gallon per flush. 4. All residential lavatory faucets shall not exceed 1.5 gallons per minute flow rate with pipe pressure at 60 pounds per square inch and shall have a minimum flow rate of 0.8 gallon per minute at 20 pounds per square inch. 5. All kitchen faucets shall not exceed 1.8 gallons per minute flow rate and may have capability to increase to 2.2 gallons per minute momentarily for filling pots and pans. 6. All public lavatory faucets shall not exceed 0.5 gallon per minute flow rate at 60 pounds per square inch.	The regulations, once fully in effect by 2039, would result in a combined annual savings of about 88.6 billion gallons of water, 223 million therms (Mtherm) of natural gas, and 1,996 gigawatt-hours (GWh) of electricity. This equates to roughly $1.13 billion in savings to California businesses and individuals.	EMISSIONS: Emissions reductions in criteria pollutants are (NO_x, SO_x, CO, PM2.5) estimated to be 179 tons per year. Greenhouse gas emissions by 1.9 million tons of carbon dioxide equivalent (CO2e) annually.

	Appliance Type	***Existing Standard***	***Proposed Standard or Description of Changes***	***Estimated Energy Effects***	***Potential Environmental Issues***
2	HVAC air filter,	There are no existing standards or labeling standards for HVAC air filters	The proposed regulations will require manufacturers to test and certify to the Energy Commission the minimum efficiency rating value or particle efficiency rating of the filters and place a label on the package.	The proposed regulations will increase compliance and have the potential to yield additional savings in installations HVAC systems.	HVAC air filters do not require a change in manufacturing that would have a negative environmental impact in California. The standards will have a positive environmental impact derived from energy savings.

	Appliance Type	***Existing Standard***	***Proposed Standard or Description of Changes***	***Estimated Energy Effects***	***Potential Environmental Issues***
3	Florescent deep dimming ballast,	2013 Title 24 of the California Code of Regulations (CCR), which regulates lighting standards requires the use of florescent deep dimming ballast as one of the option for compliance	The proposed regulations will make it easier for builders to meet one of the Title 24 requirements. The proposed regulations will require that only products that comply with the standards may be sold or offered for sale in California.	The proposed regulations will increase compliance and have the potential to yield additional savings in installations that are not covered under Title 24.	Florescent deep dimming ballast are already required to meet T24 standards when installed in buildings. The proposed requirements for florescent deep dimming ballast do not require a change in manufacturing that would have a negative environmental impact in California. The standards will have a positive environmental impact derived from energy savings.

	Appliance Type	***Existing Standard***	***Proposed Standard or Description of Changes***	***Estimated Energy Effects***	***Potential Environmental Issues***
4	Heat pump water chilling packages	There are no existing standards for heat pump water chilling packages	The proposed regulations will require heat pump water chilling packages to be tested and certified to the Energy Commission database.	The proposed regulations will assist manufacturers of the heat pump water chilling packages to meet the Title 24 compliance and have the potential to yield additional savings in installations that are covered under Title 24.	Heat pump water chilling packages are required to meet these standards when installed in buildings. The proposed design requirements for heat pump water chilling packages do not require a change in manufacturing that would have a negative environmental impact in California. The standards will have a positive environmental impact derived from energy savings.

APPENDIX B: References

References

Order Instituting Rulemaking, Order # Order 12-0314-16, 3 pages, March 4, 2012; Docket # 12-AAER-, available at http://www.energy.ca.gov/appliances/2012rulemaking/notices/prerulemaking/2012-03-14_Appliance_Efficiency_OIR.pdf

Staff Analysis of HVAC Air Filters, Dimming Fluorescent Ballasts, and Heat Pump Water Chilling Packages. CEC-400-2015-07 Docket # 15-AAER-1; available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203677_20150213T145611_Staff_Analysis_of_HVAC_Air_Filters_Dimming_Fluorescent_Ballasts.pdf

Staff Analysis of Water Efficiency Standards for Toilets, Urinals, and Faucets, CEC 400-2105-008 Docket # 15-AAER-1; available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203668_20150213T140512_Staff_Analysis_of_Water_Efficiency_Standards_for_Toilets_Urinal.pdf

Amendments to Appliance Efficiency Regulations (Express Terms), California Code of Regulations, Title 20, Sections 1601 through 1608, February 2015 Appliance Efficiency Rulemaking, 2015 Appliance Efficiency Rulemaking for Toilets, Urinals, Faucets, HVAC Air Filters, Dimming Fluorescent Ballasts, and Heat Pump Water Chilling Packages, Docket # 15-AAER-1; available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203676_20150213T142327_Proposed_Amendments_to_Appliance_Efficiency_Regulations.pdf

Notice of Proposed Action, Proposed Amendments to Appliance Efficiency Regulations, California Code of Regulations, Title 20, Sections 1601 through 1607, February 13, 2015, Docket # 15-AAER-1; available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203702_20150217T155523_Notice_of_Proposed_Action__Proposed_Amendments_to_Appliance_Eff.pdf

Initial Statement of Reasons, Proposed Amendments to Appliance Efficiency Regulations, California Code of Regulations, Title 20, Sections 1601 through 1607, February 13, 2015, Docket # 15-AAER-1; available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203678_20150213T161200_Initial_Statement_of_Reasons_ISOR_Proposed_Amendments_to_Applia.pdf

"Revised Standardized Regulatory Impact Assessment Of 2014 Proposed Appliance Efficiency Regulations" available at http://docketpublic.energy.ca.gov/PublicDocuments/15-AAER-01/TN203667_20150213T140234_Revised_Standardized_Regulatory_Impact_Assessment_of_2014_Propo.pdf

APPENDIX C: Glossary of Terms

CO – Carbon Monoxide, a gas generated from incomplete combustion processes including fossil fuel combustion. The primary concern is the effect of chronic low emission levels on local air quality, as contrasted with the potential acute health hazard posed by direct inhalation of concentrated CO.

CO_2 – Carbon Dioxide, a gas generated from normal combustion processes including fossil fuel combustion. Primary concern is its effect on global climate change.

Gigawatt-hour (GWh) – One thousand megawatt-hours, or one million kilowatt-hours, or one billion watt-hours of electrical energy.

Kilowatt-hour (kWh) – One thousand watt-hours of energy.

Megawatt-hour (MWh) – One thousand kilowatt-hours, or one million watt-hours of electrical energy.

NOx – Oxides of nitrogen, usually NO and NO2, which are gases generated from incomplete combustion processes including fossil fuel combustion. Primary concern is as a chief component of air pollution, contributing specifically to ground-level ozone (O_3), smog, and acid rain (through formation of nitric acid).

PM10 – Solid particulate matter defined as having a mean aerodynamic diameter of 10 microns or smaller. Generally considered pollutants, particulates are released from combustion processes in exhaust gases including those generated by fossil fuel plants, by mobile sources such as automobiles, and by other fugitive particle sources.

PM2.5 – Solid particulate matter defined as having a mean aerodynamic diameter of 2.5 microns or smaller. Similar in most respects to PM10 but with somewhat different effects on biology and health.

SO_x – Sulfur oxides, a group of gases generated from the combustion of sulfur. Trace quantities of sulfur are found in virtually all fossil fuels, and are combusted when the fuels are burned. Primary concern is as the pollutant primarily responsible for acid rain (through formation of sulfuric acid).