



Review of the Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999

An Environmental Protection Policy (EPP) is a mechanism for the protection of any portion of the environment or prevention/control of pollution or environmental harm, issued through the *Environmental Protection Act 1986*.

The EPA is required to review an EPP within seven years of gazettal unless otherwise directed by the Minister under section 36(1)(b) of the *Environmental Protection Act 1986*. The EPA prepared a discussion paper and sought public input for the scoping phase prior to undertaking the formal review of the *Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999*. The discussion paper was released in June 2009 and the submissions period closed in September 2009. Comments were received on the discussion paper and the EPA has responded to these comments and concerns in the attached Table.

From the information that was collected through this public consultation process the EPA recommended to the Minister for Environment that the statutory review of the EPP not be undertaken at this time. The Minister has agreed and directed the EPA via a notice to this effect published in the *Government Gazette* on 16 November 2010.

**List of submitters to the Discussion Paper – Options for the Review of the
Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999**

1	Western Australian Planning Commission
2	Pollution Action Network
3	City of Cockburn
4	Private Individual (Fellow EIANZ)
5	Private Individual
6	Kwinana Industries Council
7	Tiwest Joint Venture
8	City of Rockingham
9	Community Alliance for Positive Solutions Inc
10	BP Refinery Kwinana Pty Ltd
11	Chamber of Commerce and Industry
12	Kwinana Alumina Refinery
13	Department of Environment and Conservation
14	Kwinana Progress Association and Kwinana Watchdog Group
15	Hope Valley Wattleup Redevelopment Area Community Liaison Group Rural Representatives
16	LandCorp
17	Department of Planning
18	Department of Health
19	Town of Kwinana

Option	Comment	EPA Comments	Response to EPP
Option A – No Amendments to EPP	In Favour of no Amendments to the EPP		
	Retain EPP for a period of 5 years and then review (due to all other planning reviews being completed) (3)	Noted – a review outside the legal obligations will occur as deemed necessary by the Minister	No change to the EPP
	Supported (6)(7)(10)(11)(12)	Noted	No change to the EPP
	Provides long time surety to Kwinana Industrial Area (KIA) (6)(7)(10)(11) (12)	Noted	No change to the EPP
	The EPP provides defined buffer area for ambient SO ₂ and TSP and these should be retained for the long term future of the KIA (6)(7)(11)(12)	Agree that the EPP provides a buffer for emissions.	No change to the EPP
	The inconsistencies between the EPP and the Draft Ambient Air SEP ¹ should remain as this is deemed to be allowable through the provisions of the Draft Ambient Air SEP (6)(7)(10)(11)(12)	Noted	No change to the EPP
	Provides a de facto statutory planning line for land use separation until the Kwinana Air Quality Buffer (KAQB) is finalised (17)	The EPP boundaries may or may not align with any future industrial buffer zone, which takes other issues besides SO ₂ into consideration.	No change to the EPP
	Current EPP is an appropriate and robust mechanism to manage SO ₂ emissions (10)(11)	Noted	No change to the EPP
	TSP should remain in EPP and not defined as a local pollutant (12)	Noted	No change to the EPP
	Retain the current management of the cumulative emissions for the KIA (16)	Noted	No change to the EPP
Option A – No Amendments to EPP	Not In Favour of no Amendments to the EPP		
	Not supported - Appears to be impracticable (4)	Noted	No change to the EPP
Not supported - this EPP is not capable of doing what an EPP should. If it is to remain in place then it should be appropriately renamed to reflect that it only protects against SO ₂ and nothing else (14)	The EPP has assisted in controlling the ambient concentrations of SO ₂ emissions. The EPP also provides the legislative framework for the regulating of TSP	No change to the EPP	

¹ SEP - Refers to the *State Environmental (Ambient Air) Policy 2009*- Draft Policy for public and stakeholder comment

Option	Comment	EPA Comments	Response to EPP
Option A – No Amendments to EPP	Not in favour - Maintain the status quo in respect of submitter’s interests in the area but since there are now inconsistencies between EPP and EP Act ² these should be addressed (16)	Agree. The inconsistencies should be addressed	Amend EPP to reflect changes that have occurred in the Act since the review in 2003
	Not supported. Current EPP is inadequate. EPP must be scientifically adapted to capably and responsibly manage and monitor all current and future adverse pollutants (15)	Industrial emissions are currently managed under Part V of the EP Act. Other pollution events are covered by EP Act and associated regulations. The EPP is for the purpose of specific issues not a tool for general regulation	No change to the EPP
Option	Comments	EPA Comments	Response to EPP
Option B – Amend the EPP	IN FAVOUR OF AMENDING		
	Generally supports the amendment of the EPP (8)(12)(13)(14)(18)	Noted	No change to the EPP
Option B – Amend the EPP	Retain EPP with amendments to comply with WA Draft Ambient Air SEP including: (2)(3)(17) NEPM ³ limits for SO ₂ and particulates (3) Adoption of any new NEPM criteria into SEP and EPP (See also Comment 58) (3)	Disagree – the EPP is permitted to be dissimilar to the SEP. The methodologies used for the monitoring of the EPP and NEPM are different and simply inserting the criteria from the NEPM to the EPP would adversely affect the modelling which regulates industry. The SEP is designed to automatically adopt new NEPM criteria therefore it is not appropriate for the EPP to do so too. The EPP has an obligation to undertake a statutory process for any amendment proposed.	No change to the EPP

² EP Act – *Environmental Protection Act 1986*

³ NEPM – *National Environment Protection (Ambient Air Quality) Measure*

Analysis of Submissions – Discussion Paper: Options for the Review of the *Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999*

Option	Comment	EPA Comments	Response to EPP	
Option B – Amend the EPP	Modify or refine the EPP standards and limits to be consistent with NEPM criteria, only if the EPP is changed to apply to areas A & B only, and the standards and limits are removed from Schedule 1 of the associated regulations (16)	Disagree - The EPP will not adopt the NEPM criteria. NEPM will continue to be carried out through the SEP. The EPP will retain the three policy areas and the existing Standards and Limits will apply	No change to the EPP	
	Amend EPP to be in alignment with SEP removing any future inconsistencies (17)	The EPP will remain as a separate regulatory instrument from the SEP and the inconsistencies shall be permitted to remain but does not disadvantage either the protection of the environment or the administration of the policies.	No change to the EPP	
	Amendments should ensure the continuation of the existing SO ₂ standards and limits in the Policy Areas of A, B and C (12)	Agreed	No change to the EPP	
	Other Amendments			
	The more stringent EPP ‘standards’ for Area C be retained (2)	Agreed	No change to the EPP	
	The EPP Standards for area B and C (which are lower than the NEPM) should be retained as a minimum requirement (18)	Agreed	No change to the EPP	
	Area B (buffer boundary) become harmonised with the buffer boundary being established by the WAPC when finalised (16)	Area B boundary will not be amended in this review as there is no justification for change with respect to the effect of atmospheric wastes. The planning boundary has regard to other factors not just the EPP.	No change to the EPP	
	Highly recommended that the boundaries between Area A and B (Latitude 32 Precinct) be adjusted to reduce the restriction in Area B and broadened in Area A, removing the air quality constraints on industry in Area A (19) This is subject to all people being relocated outside Area A & B	The EPP is an airshed based policy for the purposes of managing all SO ₂ emissions. Other pollutants are managed to meet NEPM levels. Changes to Area B are not warranted at this time.	No change to the EPP	
Option B – Amend the EPP	The buffer boundaries between Area B & C (near McLaughlin waste water treatment plant, Medina Agricultural Research, Abercrombie Rd pig pens and liquid waste disposal area and the area near the Alcoa Red Mud Disposal Area) need to be reviewed to provide Area B with protection buffers from odour, 2.5 micron dust.	The current EPP relates to SO ₂ and TSP and until there has been justification for the inclusion of other emissions, the management of PM _{2.5} and odour are outside the scope of the EPP and are managed under Part V of the EP Act.	No change to the EPP	

Option	Comment	EPA Comments	Response to EPP
Option B – Amend the EPP	Boundaries of EPP should be reviewed. Consider the removal of the residential homes in Area B as this constrains industry activity and development (19)	Disagree - The boundaries within the Kwinana EPP have been designed based on modelling the emissions for SO ₂ . The amendment of the boundaries will affect the emissions which have been determined for individual premises.	No change to the EPP
	EPP should define location and boundaries of the monitoring (19)	Disagree - It is not advised that the locations of the monitoring stations be in the Policy as this could make relocation difficult and encourage vandalism.	No change to the EPP
	Extend the EPP to include protection from shipping and related pollution as well as industrial pollution (14)	All SO ₂ emissions are monitored and the cumulative SO ₂ emissions are not to exceed those levels stipulated in the EPP whether the emissions are from industry or other sources. Other pollutants are managed under Part V of the EP Act	No change to the EPP
	DEC should evaluate the standards and limits which can be applied for the residential areas outside the expanded industrial areas (Hope Valley and Wattleup) (19)	Where the EPP does not exist the NEPM and Draft Air SEP will prevail.	No change to the EPP
	Should include the guidelines and limits for fine particulates and other pollutants of concern (14)	Disagree – PM ₁₀ and PM _{2.5} shall be applied through the SEP	No change to the EPP
	If TSP removed, should be included in SEP (4)(17) Particulates may be managed under Licence conditions and other mechanisms (4)	TSP will not be removed from Kwinana EPP. Particulate stack emission levels are subject to licensing by DEC under Part V of the EP Act	No change to the EPP
	If the EPP were to remain in place then it should not include TSP as the EPP only really assists the protection from SO ₂ (14)	Disagree – TSP will remain in EPP as it currently is not subject to a NEPM level	No change to the EPP
	TSP should be given greater focus as residential areas are established closer to the industrial areas (19)	Agreed – ambient monitoring of TSP in the EPP area is the responsibility of DEC and industry.	No change to the EPP
	Option B – Amend the EPP	Monitoring of the emissions should be expanded to include ROC's, VOC's, ammonia, PM _{2.5} , PM ₁₀ , odour (19)	Disagree – The current EPP relates to SO ₂ and TSP and until there has been justification for the inclusion of other emissions, these are outside the scope of the EPP and are more appropriately managed under Part V of the EP Act.

Option	Comment	EPA Comments	Response to EPP
Option B – Amend the EPP	Changes to Objectives and Definitions		
	Supported – regarding administrative changes only i.e. replace ‘beneficial uses’ with ‘environmental values’, and updating references to parts of the EP Act. (6)(7)(10)(11)(12)(16)	Agreed– although beneficial uses is still the most appropriate term	Amend EPP to reflect the EP Act 2003 amendments
	Suggested annotation to Schedule 1 of the associated regulations be amended to “Ambient Modelling Criteria’ to ensure that there is no perceived inconsistency with the proposed Schedule 1A of the SEP (13)	Disagree	No change to the EPP
	If the EPP boundary is changed to only encompass Area A and B and the limits and standards for Area C are removed, then it is suggested that the objective read “to ensure air quality in the area to which the policy applies, is within standards appropriate to the land use designated for that area”. (16)	EPP boundary will not be amended and so there is no requirement to change the objective	No change to the EPP
	If the suggested amendment to change the EPP boundary to only encompass Area A and B and the limits and standards for Area C are to be removed, is not adopted then it is suggested that the objective be “ensure air quality in residential areas of the Kwinana region outside the buffer, is within the NEPM standards” (16)	The boundary for the EPP areas will not be amended and the NEPM criteria will not be applied to the EPP Standards or Limits for SO ₂ . All other NEPM criteria apply in Area C.	No change to the EPP
	The reference to the Draft Ambient Air SEP’s “resident free buffer” does not include areas of congregation (shopping centres and restaurants) and is therefore not considered to be an adequate replacement of the buffer arrangements in the EPP. (8)	The application of the SEP will not apply to the area where an EPP exists for SO ₂ . The EPP definitions and applications will continue other NEPM criteria will apply where people live under the SEP.	No change to the EPP
Option B – Amend the EPP	AMENDMENT OF BUFFER		
	Amend current buffer in light of SO ₂ levels and emerging planning framework. A portion of Area B (within City of Rockingham) be moved into Area C. (8) Reason: a) SO ₂ levels have not been exceeded at monitoring site since 1994 (level was above the standard but not the limit) (8) b) 2005 & 2006 DEC carried out background monitoring to assess concentrations of toxic pollutants and compare them to the Air Toxics NEPM. This included VOC’s, NO ₂ PM _{2.5} and ammonia with the recorded excesses of the NEPM or any of the monitored pollutants.(8)	The boundaries of the EPP area should not be used for planning as they are based on airshed modelling for the purposes of SO ₂ management. In recent years low sulfur fuels and emissions have lead to low levels at this boundary. This may not be the case in the future and to move the boundary now may create untenable problems in the future for industry and residents. DEC is continuing to stay abreast of other pollutants.	No change to the EPP

Option	Comment	EPA Comments	Response to EPP	
Option B – Amend the EPP	c) Further studies by DEC indicate that concentrations of key VOC's and ammonia were well below applicable air criteria(8)			
	d) The area falls outside the SO ₂ Emission Worst Case Contour(8)			
	An EPP boundary currently provide a de facto planning tool (17)	This is not the intended purpose of the EPP	No change to the EPP	
	The buffer boundaries between Area B and C, should be reviewed to provide within Area B adequate protection buffers to industry to be able to adequately control odour, dust and other emissions to the public and other sensitive receptors (19)	The EPP only regulates for SO ₂ and TSP emissions. Without justification for the inclusion of other emissions to the EPP, these should be managed through other regulatory instruments by DEC.	No change to the EPP	
	OPPOSE AMENDMENTS			
	TSP should remain in EPP and not defined as a local pollutant (12)	Agreed	No change to the EPP	
	Application of the NEPM Standards in Area B may result in potential restrictions to the Kwinana Industry emissions of SO ₂ and future expansion (10)(11)	Agreed.	No change to the EPP	
	Strongly opposes any amendment to the EPP which would see the EPP standards and limits changed to match the NEPM (10)	Agreed	No change to the EPP	
Option B – Amend the EPP	Does Not Support: Removing TSP from EPP and adding this to Draft Ambient Air SEP as a local pollutant (6)(7)(10)(11)(12)	Agreed	No change to the EPP	
	Modifying standards and limits to conform to NEPM criteria for SO ₂ (6)(7)(10)(11)(12)	Agreed	No change to the EPP	
	Modifying objectives of EPP to state compliance with NEPM standards (6)(7)(10)(11)(12)(16) Would result in NEPM values being applied to area B until this area was free on residents. This may result in the reduced emissions from industry in order to comply with standards and reduce their operation time (16)	Agreed	No change to the EPP	
	Amending the EPP to adopt NEPM SO ₂ ambient standards for both Area B and C (6)(7)(10)(11)(12)(16)	Agreed	No change to the EPP	
	Application of NEPM standards at any sensitive receptors as proposed by the Draft Ambient Air SEP (6)(7)(11)(12)	Application of the NEPM criterion will apply in the EPP area for all pollutants excluding SO ₂	No change to the EPP	

Option	Comment	EPA Comments	Response to EPP
	Changes to ambient air levels in Area B will tighten the air quality criteria for the buffer area (10)	Agreed. SO ₂ ambient limits and standards will remain.	No change to the EPP
Option	Comment	EPA Comments	Response to EPP
Option C Revoke EPP	IN FAVOUR OF REVOKING		
	EPP no longer required to manage SO ₂ emissions. Air quality should be managed through licence conditions (5)	Disagree	No change to the EPP
	EPP is not needed to manage the dust issues. Should be managed by the individual facility (5)	Disagree - EPP provides a regional framework for the management of cumulative dust emissions in the KIA.	No change to the EPP
	TSP would need to be added to Ambient Air SEP as a local pollutant at the same time the EPP is removed. The process of this is unclear in the SEP (17)	The EPP will not be revoked at this time.	No change to the EPP
	NOT IN FAVOUR OF REVOKING		
	Strongly oppose replacing EPP with NEPM for the following reasons(6)(7)(11)(12) EPP provides legal framework that assures industry of emission allocations (6)(7)(8)(11)(12)(13)	Agreed	No change to the EPP
	May result in emission limits and standards being altered (6)(7)(11)(12)(16)	Agreed	No change to the EPP
	Remove clear graduation of air quality standards for SO ₂ , dust and TSP that exist in EPP policy areas A, B and C (6)(7)(8)(11)(10)(12)	Agreed	No change to the EPP
	Draft Ambient Air SEP does not provide a buffer area currently defined by EPP for SO ₂ and TSP (6)(7)(11)(10)(12)	There is no buffer in the EPP. Only three policy areas.	No change to the EPP
	Represent a tightening of ambient air quality criteria to that of the current standards and limits for Area B for SO ₂ (6)(7)(10)(11)(12)(16)	Agreed	No change to the EPP
Option C Revoke EPP	Lessening of the air quality criteria currently applied in Area C for SO ₂ (6)(7)(11)(12)(16)	Disagree - Area C will remain under tighter restrictions for SO ₂ than those areas outside the EPP area.	No change to the EPP
	Remove the requirement of the EPA to consult when making significant changes to aspects such as the maximum permissible quantities, (6)(7)(11)(10)(12)	The EPA does not make amendments to the maximum permissible quantities as these are undertaken through Clause 7 of the EPP and at the direction of the DEC or the Minister.	No change to the EPP

Option	Comment	EPA Comments	Response to EPP
Option C Revoke EPP	Remove the surety provided by the EPP(6)(7)(10)(11)(12)	Agreed	No change to the EPP
	Strongly opposes revocation of EPP (6)(7)(10)(11)(12)	Noted	The EPP will remain in effect
	Does not support the revocation of the EPP (16)(19) Render the status of the buffer problematic (16)	Disagree – The EPP does not have a defined buffer. DoP ⁴ are continuing to establish appropriate planning boundaries for industry.	No change to the EPP
	Note the revocation would reduce licence fees in the area, and these higher fees are used as an incentive to reduce emissions (13)	Noted	No change to the EPP
	Replaced with an equally effective management process prior to revocation (17)(13)	Noted – Such a process does not currently exist for SO ₂ .	No change to the EPP
	Should occur at the same time as the finalisation of the DoP’s KAQB (17)	Noted – These two processes are separate in their objectives and functions.	No change to the EPP
Option	Comment	EPA Comments	Response to EPP
General comments	LEGISLATIVE COMMENTS		
	There are no environmental quality objectives given. Where are these found? (9)	Noted - Clause 2 of the EPP – Purposes of policy.	No change to the EPP
	No comment on the removal of TSP from the EPP (16) Considered it more appropriate that Local Government provide comment (1)	Noted	No response required
	Need for the EPP (and Draft Ambient Air SEP) to quickly adopt new NEPM when established (3)	EPP is not able to quickly adopt new criteria. Any modification to the EPP must follow the process illustrated in the discussion paper (p62). The advantage of the Ambient Air SEP is that it has the ability to quickly apply new NEPM criteria.	No change to the EPP
	Option C (revoke) should only be considered if the <i>Environmental Protection Act 1986</i> provides a mechanism for similar negotiations to be undertaken again in the future (4)	Noted – An EPP can be made under Part III of the EP Act at any time.	No response required
General comments	EPP standards and limits are based on moving 1-hour averages as opposed to clock hours used under the NEPM (6)(7)(11)(12)	Noted – DEC has provided advice on this and the methods of monitoring and the determination will continue using the move 1-hour averages until further notice.	No change to the EPP

⁴ DoP – Department of Planning

Option	Comment	EPA Comments	Response to EPP
General comments	Inconsistencies between the EPP and the EP Act that should be addressed (16)	Agreed	Administrative inconsistencies will be addressed
	As the EPP does not capture all amenity issues such as dust and odour, a DoP planning mechanism that captures all planning issues would still be required (17)	Agreed	No change to the EPP
BUFFER AND LANDUSE COMMENTS			
	The buffer in the Kwinana EPP has been subject to pressure for residential development in several areas within and adjacent to the buffer and this situation will continue unless the buffer is finalised, This causes uncertainty for owners of land and for prospective new or expanding industries within the buffer. (3)	Noted	No response required
	EPP buffer should be in agreement with the WAPC interim buffer (3)	Disagree – two different purposes are dealt with here (air quality and land use) and both may need to managed differently to achieve the optimum outcome	No change to the EPP
	EPP buffer should be included in a State Planning Policy (3)	Noted	No change to the EPP
	The EPP should cease to be used as a de facto system for setting the Kwinana Buffer. This should be formed on planning grounds (5)	Agree – this was never the intention of the EPP. DoP are developing an appropriate planning boundary.	No change to the EPP
	Create a standardised, understandable policy that does not discriminate where people live (15)	The EPP should be understandable and be able to be applied by all stakeholders. The policy recognises where people live and that is reflected in its application to protect their health and safety from adverse effects from the emissions.	No change to the EPP
General comments	Plan for resident free areas or restrict industry polluting emissions (15)	Agreed – planning for resident free areas should be considered by DoP. The EPP has assisted in reducing SO ₂ emissions in the KIA since 1992 and the ambient concentrations are currently below the nation standards for SO ₂ even in Area B.	No change to the EPP

Option	Comment	EPA Comments	Response to EPP
General comments	Some options in the review may prejudice current and proposed land uses in the Western Trade Coast Area (16) The Western Trade Area consists of the Rockingham Industrial Zone, Australian Marine Complex, Latitude 32 Industry zone and the KIA.	Noted- the EPP has been in effect since 1992. The proposed land uses should be aware of the existence of the EPP.	No response required
	Area B should be redefined to not include the residential homes (19)	Disagree – Boundaries have been developed from modelling emissions and negotiations of where people live. Current emissions are already lower than the NEPM levels for Area B. Land use planning issues should be dealt with by the appropriate planning authority	No change to the EPP
	Buffer review should be conducted in light of the standards and limits for the new expanded industrial area (19)	There has been no confirmation on the location of the new expanded industrial area.	No change to the EPP
MONITORING			
	Ambient monitoring in the KIA and adjacent area is probably justified – are all 6 stations necessary? (4)	There are currently 5 active monitoring stations and monitoring and reporting is required as an ongoing condition of licence.	No change to the EPP
	Review location of existing monitoring sites. Miguel Road should be relocated to the SE so that it is more likely to represent air quality in the areas (4)	The locations of the monitoring sites are not determined by the EPA or EPP. Location of DEC monitoring stations are reviewed from time to time by DEC.	No change to the EPP
General comments	Consider ‘event-based pollution’ that is not captured within the ‘relevant portion of the environment’. For example when easterly winds arise, pushing pollutants west from the heavily industrial zone. This event raises the concerns of the integrity of the monitoring strategies. (9) What regard is given to those on Garden Island and the marine habitat west of the high tide line adjacent to buffer zones aligned with heavy industry? (9)	These issues are considered in the re-determination for SO ₂ . Other pollutants are the subject of licences under Part V of the EP Act. Modelling results have included Garden Island and have given consideration to its inclusion in the EPP boundaries.	No change to the EPP

Option	Comment	EPA Comments	Response to EPP
General comments	What about monitoring at the stacks where the emission comes from? The use of critical process control points with shut downs would control industry from producing pollution events that expose the community to concentrations of substances that pose a health risk. (9)	This is conducted through Part V of the EP Act.	Regulated under Part V. No change to the EPP or regulations
	Proactive licence agreements – critical process control monitoring points with the refinery? (9)	This is conducted through Part V of the EP Act.	No change to the EPP
	The concentration of particles that make up the TSP ₅₀ is a physical measure only and the particles should be quantified to determine their exact composition. (9)	This is conducted through Part V of the EP Act.	No change to the EPP
	Direct stack monitoring of pollutants emitted into the Kwinana airshed would be a more practical monitoring tool (9)	Noted – This is already conducted through Part V of the EP Act and regulated by DEC.	No change to the EPP
	What emission monitoring is being carried out by the individual and can the public gain access to this data? (9)	Monitoring is undertaken through Part V of the EP Act. Public can access this information through the NPI website www.npi.gov.au and access to premises licence conditions through DEC website. Information is also able to be requested through the Freedom of Information Act 1992.	No change to the EPP
	Monitoring and tracking of pollutants appears to be haphazard (e.g. non-continuous) and event-based pollution events (e.g. <1hr) are not captured. A comprehensive monitoring program, inclusive of all parameters and not just SO ₂ sampling, and monitoring stations should be permanently employed within the refinery and in all directions at distance from the heavy industrial zone. (9)	Periodic monitoring of a wide range of pollutants by DEC has not revealed the need for on-going comprehensive monitoring.	No change to the EPP
General comments	Further research should be undertaken to elucidate surrogate parameters which could be used to assist industry and regulators monitor and manage atmospheric pollutants generated within the KIA. (9)	DEC continue to carry out monitoring in the area and through the Perth Air Quality Management Plan.	No change to the EPP
	Monitoring locations in Area A not shown in the provided graphs (9)	Ambient monitoring is not undertaken in Area A. Industry conduct point source emission monitoring (for a number of pollutants) in accordance with licence conditions.	None

Option	Comment	EPA Comments	Response to EPP
General comments	Licence-based emission control suggests that data exists for pollutant types emitted from stacks. Why has this data not been shown and how/where does this information relate to the current proposal? (9)	There are numerous substances which are emitted by industry into the Kwinana Airshed and it is not appropriate to include these in details in the discussion paper. Further information can be found at the NPI website www.npi.gov.au and from DEC.	No change to the EPP
	DEC should ensure the standards and limits (including the additions of PM _{2.5}) are complied with (19)	DEC ensures the achievement of the standards and limits for SO ₂ and TSP through licence conditions.	No change to the EPP
	Future generations should be considered by all KIA industries, individually and collectively, to address the chemical cocktail effect (19)	Agreed – this is an important aspect of the Perth Air Quality Management Plan.	No change to the EPP
	Western Australian EPP should be a undertaking “world’s best practice” to protect public health (19)	The existing EPP ensures the ambient levels for SO ₂ are at, or better than, the NEPM levels which currently represent the levels for the protection of human health.	No change to the EPP
	Minister and EPA should demand the Environmental and Public Health laws improve the management of chemical pollutants that are emitted from the KIA (19)		No change to the EPP
	Further research and development must be undertaken by government and the KIC relating to individual industries emission and the cumulative effects in order to understand long term impacts (19)	Monitoring and research should continue to be undertaken to investigate short and long term impact within the KIA. When this is better quantified a decision as to whether an EPP is appropriate can be made.	No change to the EPP
	DISCUSSION PAPER CRITIQUE		
General comments	At STP (0°C, 1013.25hPa), 0.20ppm of SO ₂ equals approximately 571.6 which is commonly rounded down to 571µg/m ³ not 570 µg/m ³ s stated in technical box 2 of the Discussion Paper (6)(7)(11)(12)	Noted and will amend for future publications	
	The statement in Technical Box 2 should read “This means that the second highest measured clock-hour average must be below the standard on a different day to when the maximum was recorded”. This then has reference to the NEPM standard (6)(7)(11)(12)	Agree and will amend in future publications	

Option	Comment	EPA Comments	Response to EPP
General comments	The EPP standard is defined being desirable not to be exceeded. The EPP itself does not allow nine exceedences (99.9 th percentile) of the 1-hour standard. From Technical Box 3 – air dispersion modelling has used the 99.9 th percentile 1-hour average concentration but this does not automatically flow back to the monitoring data demonstrating compliance with the standard (6)(7)(11)(12)	This issue has been illustrated in Appendix 4 of the discussion paper. Please note that the EPP and NEPM standards are formulated differently and cannot be directly compared.	
	Graphs in Appendix 4 may mislead the reader (6)(7)(11)(12) EPP does not allow for 9 exceedences even though modelling is based on this notion, the comparisons of the EPP standards against the 9th highest monitored concentration is incorrect and misleading	Noted	
	The presentation correctly applies the EPP standards to the different monitoring station based on the EPP area in which they are located, this is not immediately apparent in the graphs (6)(7)(11)(12)	Noted	
	INDUSTRY		
General comments	State Government Power providers have not completed phasing out their use of coal in Kwinana and should be linked to the Greenhouse challenge for CO ₂ (19)	Noted – Not a consideration for the EPP review	No Response
	Need a standardised policy that restricts industry polluting emissions (15)	Noted – the EP Act is an instrument available for the prevention and control of pollutants.	
	Due to the growth in industry a redetermine of the emission levels for individual industries should be carried out using a lower per unit emission criteria (19)	A redetermination has recently been completed by DEC (July 2009). ‘Redetermination of maximum permissible quantities of sulphur dioxide under the Environmental Protection (Kwinana)(Atmospheric Wastes) Policy 1999’. This is available through the DEC website.	
	Emission limits for each industry should be reviewed and regulated under the EP Act (19)	SO ₂ emissions for industries in the KIA are reviewed under the powers set in the EPP. Other emissions are regulated through provisions of the EP Act.	