



Application for Second Tier Review or Third Tier Review

INSTRUCTIONS

Use this form to request Ecology review of a petition for second or third tier review. Review begins when you submit your health impact assessment protocol.

Fill out all pages of this form, front and back. Attach a check for the \$10,000 initial fee to the form, and mail to:

**Department of Ecology
Cashiering Unit
P.O. Box 47611
Olympia, WA 98504-7611**

For Fiscal Office Use Only:
001-NSR-216-0299-000404

Check one box to indicate the review you are requesting.	Initial Fee
<input type="checkbox"/> Petition for Second Tier Review. The initial fee covers 106 hours of review.	\$10,000
<input type="checkbox"/> Petition for Third Tier Review. The initial fee covers 106 hours of review.	\$10,000

Read each statement, then check the box next to it to acknowledge what you have read.

<input type="checkbox"/>	The initial fee you submit may not cover the cost of processing your petition. Ecology will track the number of hours spent on your project. If the number of hours exceeds the 106 hours included in your initial fee, Ecology will send you a bill for that extra time.
<input type="checkbox"/>	Ecology will bill you \$95 per hour for each hour worked beyond the initial 106 hours.
<input type="checkbox"/>	You must pay the bill before Ecology will issue a decision on your petition.

Check one box to indicate the air agency with permitting jurisdiction over your project.

- | | |
|--|---|
| <input type="checkbox"/> Benton Clean Air Agency | <input type="checkbox"/> Yakima Regional Clean Air Agency |
| <input type="checkbox"/> Olympic Region Clean Air Agency | <input type="checkbox"/> Ecology Central Regional Office Air Quality Program |
| <input type="checkbox"/> Puget Sound Clean Air Agency | <input type="checkbox"/> Ecology Eastern Regional Office Air Quality Program |
| <input type="checkbox"/> Southwest Clean Air Agency | <input type="checkbox"/> Ecology Industrial Section Waste 2 Resources Program |
| <input type="checkbox"/> Spokane Regional Clean Air Agency | <input type="checkbox"/> Ecology Nuclear Waste Program – Hanford |

For more information	
Science and Engineering Section Air Quality Program Ecology Headquarters Office	Matt Kadlec (360) 407-6800 matthew.kadlec@ecy.wa.gov

If you need this document in a format for the visually impaired, call the Air Quality Program at 360-407-6800. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.



Application for Second Tier Review or Third Tier Review

Applicant Information

The applicant is the business requesting services from Ecology and is responsible for paying the costs Ecology incurs.

Name of business _____

Physical location of project (city, county) _____

Name of project _____

Responsible Official

The responsible official is the person responsible for overall operation of and ongoing compliance at the facility.

Name, Title _____

Mailing address _____

City, State, Zip _____

Phone, Fax, E-mail _____

Project Billing Contact Information

Ecology will send the responsible official the bills if there are any.

If the project billing contact is different from the responsible official, check this box and provide the required information.

Name, Title _____

Mailing address _____

City, State, Zip _____

Phone, Fax, E-mail _____

Project Consultant Information

If you hired a consultant to prepare the application (or materials), check this box and provide the required information.

Consultant Name, Title _____

Organization _____

Mailing address _____

City, State, Zip _____

Phone, Fax, E-mail _____

Responsible Official Signature Block (The responsible official is the person responsible for overall operation of and ongoing compliance at the facility.)

I certify, based on information and belief formed after reasonable inquiry, the statements and information in this application are true, accurate, and complete.

Printed Name _____ Title _____

Signature _____ Date _____



Air Quality Health Impact Assessment Completeness Checklist

The Department of Ecology (Ecology) recognizes that each proposal is unique in scope and predicted air quality impacts. Therefore, this checklist may not include all of the information needed to determine completeness of each second or third tier petition.

A finding of completeness means the Health Impact Assessment (HIA) contains all of the information needed to begin reviewing the HIA. It does not preclude Ecology from requesting additional clarifying information in the course of reviewing the HIA and making the final decision on the proposal.

Project Information (to be completed by the applicant)
Facility Name:
Project Name:
Date Checklist Completed:
Name of Person Completing Checklist:
Signature of Person Completing Checklist:

HIA Completeness Questions (Check one box on the right for each question)		Yes	No	N/A
A. General Requirements				
1.	Has the local air authority or Ecology Regional Office prepared a preliminary Notice of Construction (NOC) approval? ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Has the review fee been paid?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Did the applicant develop a HIA protocol that was approved by Ecology?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Is the petition also available in electronic format (to expedite review)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Is the proposed best available control technology for toxics (tBACT) described for each pollutant subject to review?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Is the proposed tBACT consistent with the preliminary NOC approval? ²	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Are the emissions units' operating schedule(s) provided in a clear manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Are the operating schedules consistent for all pollutants evaluated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are the proposed operating schedules realistic?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Does the petition demonstrate compliance with all National Ambient Air Quality Standards (NAAQS). <i>Note: This is especially critical if the TAPs subject to review are also regulated as criteria pollutants.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Have all necessary references been identified? <i>Note: The petition must include adequate references to support the use of the selected emissions control technology, emission factors, cancer unit risk factors, non-cancer risk-based concentrations, meteorology, background concentrations, land use/land classification and other information used in the risk assessment.</i> ³	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Dispersion Modeling				
1.	Was the most recent version of AERMOD used for modeling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Was modeling conducted according to the approved HIA protocol?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

¹ If requested by the applicant, Ecology may begin reviewing the HIA before the preliminary NOC approval is issued. However, the HIA may not be deemed complete until the preliminary NOC approval has been prepared.

² Check "N/A" and explain in Section E below if the petition has been submitted prior to issuance of the preliminary NOC approval.

³ For sources of unit risk factors and non-cancer risk based concentrations, see "Guidance Document: First, Second and Third Tier Review of Toxic Air Pollution Sources (Chapter 173-460 WAC). Ecology Publication No. 08-02-025 (rev. 9/10).

HIA Completeness Questions (Check one box on the right for each question)		Yes	No	N/A
3.	Have dispersion modeling inputs and outputs (including POST files of hourly concentrations at designated receptors) been submitted in an acceptable electronic format?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Do the modeling inputs and outputs agree with the NOC application and preliminary approval if available? ⁴	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Were at least 5 years of representative meteorological data used in the modeling?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Does the modeling domain clearly contain all areas where concentrations exceed the acceptable source impact level (ASIL)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Does the receptor grid spacing comply with the recommended grid spacing in the first, second and third tier review guidance document? ⁵	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Is the geographic coordinate system and datum of the grid clearly identified?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Was modeling conducted for each pollutant that could be emitted at rates exceeding the small quantity emission rate (SQER)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Are the modeled emission rates equivalent to the proposed tBACT emission limits?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Have the operating scenarios and emission patterns been represented consistently and concisely in the NOC application and modeling files?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Have the appropriate background concentrations been included?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. HIA Report				
1.	Does the HIA follow the outline in the HIA guidance? ⁶	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Are all the toxic air pollutants (TAPs) that will be emitted summarized in one table (other chemicals too if possible) by Name, CAS, emission rate (mass/time) and SQER?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	For each TAP exceeding the SQER, does the HIA report the maximum modeled concentration of each TAP at and beyond the property boundary?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

⁴ If a preliminary NOC approval is not yet available, answer “YES” if the modeling inputs and outputs agree with the NOC application.

⁵ See: “Guidance Document: First, Second and Third Tier Review of Toxic Air Pollution Sources (Chapter 173-460 WAC). Publication No. 08-02-025 (rev. 9/10).

⁶ See: “Guidance Document: First, Second and Third Tier Review of Toxic Air Pollution Sources (Chapter 173-460 WAC). Ecology Publication No. 08-02-025 (rev. 9/10).

HIA Completeness Questions (Check one box on the right for each question)		Yes	No	N/A
4.	Is the overall maximally impacted extra-boundary receptor identified for each pollutant modeled? (<i>This is the point of maximum concentration, which is occasionally different from the maximally impacted residential, boundary or commercial receptors.</i>)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	If emissions are greater than SQERs, were their concentrations modeled as approved in the HIA protocol and were the resultant ambient concentrations compared to corresponding ASILs? <i>A single table that shows the ASIL comparison should be provided.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Is the facility location (geo-coordinates) provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is the facility location mapped onto an aerial photograph showing details like proposed emission points and off-site receptors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Is a current land-use zoning map provided?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Are sensitive receptors (retirement facilities, public schools, medical centers, etc.) listed and located on a map of the facility's surrounding area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Are the maximally impacted points outside the non-public accessible area of the facility, and commercial and residential receptors determined based on concentration gradients of TAPs exceeding ASILs (not necessarily nearest location)? <i>Note: Compliance must be demonstrated in any area to which the applicant does not restrict or control access.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Do the modeling results show the highest 1-h, 8-h, 24-h and annual time-weighted average (TWA) concentrations, if applicable for TAPs of concern, at appropriate maximally impacted receptors? <i>The HIA should present all concentration data in one table.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.	Are there concentration contour maps for each applicable averaging time and for each TAP that exceeds the ASIL?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13.	Are concentration contour isolines drawn at an adequate resolution to enable a quick estimate of modeled concentrations at all sensitive receptors within the modeling domain? <i>Five isolines per decade of concentration (e.g., 10, 15, 25, 40, 60, 100) generally provides adequate resolution.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14.	Do the concentration contour maps show the public access boundary and identify commercial, residential and other occupied building locations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.	Are all buildings identified by type of use (residential, commercial, public) inside areas affected by the project's emissions resulting in concentrations greater than the ASIL?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HIA Completeness Questions (Check one box on the right for each question)		Yes	No	N/A
16	Are potential toxic effects of each TAP to be emitted in amounts above SQERs listed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Are those TAPs in Question C.16 that can affect the same tissue/organs as those affected by the TAPs that exceed the ASIL carried through the next steps in the risk evaluation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Are the risk-based concentrations (RBCs) - 1-h, 8-h, 24-h, chronic and cancer RBCs for TAPs from USEPA (IRIS and NAAQS), OEHHA, ATSDR RBCs for the chemicals evaluated listed? <i>Note: Exposure durations of 1-h, 24-h and 1-year are most applicable as starting points to estimate health risks at the MIRR. Exposure durations of 1-h, 8-h and 1-year are most applicable as starting points to estimate risks at the MICR. Exposure durations of 1-h and 8-h are most applicable as starting points to estimate risks at the MIBR.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Are conflicting (different) RBCs carried through the analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Are air, water and soil transport and fate data provided with half-life estimates?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21	Do any of the following TAPs exceed their ASILs? <i>4,4'-methylene dianiline, creosote, diethylhexylphthalate, hexachlorocyclohexanes, PAHs, PCBs, cadmium compounds, chromium VI compounds, inorganic arsenic compounds, beryllium compounds, lead compounds, mercury compounds, nickel, or PCDD/Fs</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	If you answered "YES" to Question C.20 above, are appropriate non-inhalation pathways analyzed? <i>Note: Evaluation of non-inhalation exposure pathways may be unnecessary in some situations for some of the TAPs but applicants must first check with Ecology toxicologists in order to be exempted from performing that evaluation.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Are TAP concentration estimates compared to 1-h, 8-h, 24-h, chronic and cancer RBCs for TAPs possessing such RBCs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Is the existing background level (NATA or other) of each TAP of concern provided and carried through the analysis?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Are cancer risks and non-cancer health hazards quantified and are attempts made to estimate increased likelihoods of these effects in exposed populations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26	Are reasonable exposure scenarios used? <i>e.g., An intermittent exposure of 2-h/d for 250 d/y for 30-y is assumed for the boundary; 8-h/d for 250 d/y for 40-y assumed typical commercial exposures; 24-h/d for 365 d/y for 70-y assumed for residential exposures.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

HIA Completeness Questions (Check one box on the right for each question)		Yes	No	N/A
27	Are appropriate Hazard Quotients (HQs) and Hazard Indexes (HIs) derived for each of maximally impacted location and duration?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	For acute hazards with hazard quotients >1, are data on frequency and time clustering of events at affected locations provided? <i>For certain acutely toxic TAPs, the frequency of exposures to higher than normal concentrations is also explored.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	Are the additional cancer risks, HQs and HIs presented and calculated for the background (pre-existing) concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Do the conclusions contain a discussion of the effects of uncertainties on confidence in conclusions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31	Is each aspect of the health impact assessment highlighted in the conclusions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Third Tier Petitions				
1.	If this is a third tier petition, does the petition include a discussion of environmental benefits of the proposal?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Does the petition propose voluntary measures that would reduce community exposure, especially exposure of that portion of the community subject to the greatest additional risk, to comparable toxic air pollutants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

E. Comments (Provide any necessary clarifying information. For example, you may explain your “N/A” responses in this section.)

FOR ECOLOGY USE ONLY

Is the petition complete?

YES

NO

Missing Information: If the petition is not complete, please list all missing but required information using the Question Identification Numbers above:

Comments (Identify other missing but required information not listed above.)

Modeling Review By:

Date:

Toxicology Review By:

Date:

Engineering Review By:

Date:
