



Sonac Australia Pty Ltd
DEVELOPMENT LICENCE APPLICATION

Application ID: APP002180

EPA Vic.

Request for Further Information

RFI001912 - EPA 4/4/22

April 2022

The following report details further information as requested by
RFI001912

Sonac Australia Pty Ltd
ACN 155 858 601
281 Maryborough - Dunolly Rd, Maryborough, VIC

REQUEST BY EPA Further information is required, including evidence showing that you have -	SONAC FURTHER INFORMATION																																							
Reviewed of a) all sources of noise associated with the activities within their premises, b) including existing operation, and the c) proposed expansion, and d) detailing their location, and e) hours of operation.	<p>a) All sources of noise associated with activities on the premises were measured and assessed at the Sonac site on 5/4/22, refer to Attachments 2-4 for details of locations.</p> <p>Average noise measurements associated with the activities of the premises were measured using a mobile app Decibel Meter – dB at chest height and away from possible sources of sound reflection.</p> <table border="1"> <thead> <tr> <th>Point source @ 1m</th> <th>Noise Measured dB(A)</th> <th>Op. Hrs</th> </tr> </thead> <tbody> <tr> <td>Dryer fan room</td> <td>83 (1m from dryer room)</td> <td>24/7</td> </tr> <tr> <td>Centrifuge shed</td> <td>82 (1m, to be decommissioned)</td> <td>24/7</td> </tr> <tr> <td>Air compressors</td> <td>78 (1m from shed housing)</td> <td>24/7</td> </tr> <tr> <td>Chiller</td> <td>79 (1m from chiller)</td> <td>24/7</td> </tr> <tr> <td>Permeate pump set shed (Intermittent operation)</td> <td>78 (1m from shed)</td> <td>24/7</td> </tr> <tr> <td>Permeate recirculation pump</td> <td>78 (1m from pump)</td> <td>24/7</td> </tr> <tr> <td>Evaporators</td> <td>79 (15m from evaporator)</td> <td>24/7</td> </tr> </tbody> </table> <p>b) Existing operation noise assessment survey was conducted on 5/4/22 at 21:30 in clear and calm conditions. Noise measurements were taken on the Sonac site property line perimeter, refer to Attachment 1.</p> <p>Noise measurements on property line survey:</p> <table border="1"> <thead> <tr> <th>Perimeter</th> <th>Measured noise dB(A)</th> <th>Peak dB(A)</th> </tr> </thead> <tbody> <tr> <td>West</td> <td>58</td> <td>60</td> </tr> <tr> <td>South</td> <td>60</td> <td>63 (car passing)</td> </tr> <tr> <td>East</td> <td>58</td> <td>64 (car passing)</td> </tr> <tr> <td>West</td> <td>56</td> <td>58</td> </tr> </tbody> </table> <p>There are no residential properties near the site.</p> <p>c) The proposed expansion includes the installation of a new box dryer and a new blower shed. All blowers have been ordered with sound deadening hoods. The manufacturer projects blowers to generate noise of 77dB(A) at 1m from the blower unit. These units will be housed inside a colour bond metal blower shed. All interior walls and roof to be insulated with 'Aircell Insulbreak 70'. Actual noise level outside the insulated blower shed is to be determined but expected to be reduced. Manufacturers specification statements for noise emissions for each unit without hood ~109dB(A) and with hood ~77dB(A). Refer to Attachment 6 for the proposed new blower shed schematic.</p> <p>d) Details of the location of all noise generating sources detailed in Attachments 2, 3, & 4</p> <p>e) Sonac Australia manufacturing facility operates 24hrs 7 days a week (24/7). Raw material blood deliveries and dispatches of finished product and other ancillary vehicular traffic occurs Monday to Saturday and is presented in the tables below.</p>	Point source @ 1m	Noise Measured dB(A)	Op. Hrs	Dryer fan room	83 (1m from dryer room)	24/7	Centrifuge shed	82 (1m, to be decommissioned)	24/7	Air compressors	78 (1m from shed housing)	24/7	Chiller	79 (1m from chiller)	24/7	Permeate pump set shed (Intermittent operation)	78 (1m from shed)	24/7	Permeate recirculation pump	78 (1m from pump)	24/7	Evaporators	79 (15m from evaporator)	24/7	Perimeter	Measured noise dB(A)	Peak dB(A)	West	58	60	South	60	63 (car passing)	East	58	64 (car passing)	West	56	58
Point source @ 1m	Noise Measured dB(A)	Op. Hrs																																						
Dryer fan room	83 (1m from dryer room)	24/7																																						
Centrifuge shed	82 (1m, to be decommissioned)	24/7																																						
Air compressors	78 (1m from shed housing)	24/7																																						
Chiller	79 (1m from chiller)	24/7																																						
Permeate pump set shed (Intermittent operation)	78 (1m from shed)	24/7																																						
Permeate recirculation pump	78 (1m from pump)	24/7																																						
Evaporators	79 (15m from evaporator)	24/7																																						
Perimeter	Measured noise dB(A)	Peak dB(A)																																						
West	58	60																																						
South	60	63 (car passing)																																						
East	58	64 (car passing)																																						
West	56	58																																						

Assessment of vehicular traffic to and from Sonac manufacturing site comparing present operations and production capacity and proposed operations following the construction of the expansion project and production increase. Production increase expected 2025.

Present traffic 30,000T RM

Proposed 50,000T RM traffic (60% increase)

Purpose	Number per 7 days	Purpose	Number per 7 days
Sludge disposal	.43	Cake disposal truck	.28
Incoming RM	Per raws sheet	Incoming RM	per raws sheet
Finished product out	1.14	Finished product out	1.8
Permeate golf course	.28	Permeate golf course	0
Goods incoming (incl chemical deliveries, pallets)	.42	Goods incoming (incl chemical deliveries, pallets)	.68

SONAC MARYBOROUGH - SEMI MOVEMENTS									
NOW 2021									
	Vd (MT)	Trucks	Per Day Entries	Entry			Exit		
Raws	31000	1550	4.3	0%	between 0800 - 1200	5%	between 0800 - 1200		
				0%	between 1200 - 1600	10%	between 1200 - 1600		
Melb	6000			20%	between 1600 - 2000	45%	between 1600 - 2000		
Colac	5000			20%	between 2000 - 2400	15%	between 2000 - 2400		
Warrnambool	7000			40%	between 2400 - 0400	15%	between 2400 - 0400		
Moe	2000			20%	between 0400 - 0800	10%	between 0400 - 0800		
Wagga	1000			100%		100%			
Grampians	4000								
North	3000		4.26	Entry			Exit		
SA	3000			0.0	between 0800 - 1200	0.2	between 0800 - 1200	0.2	between 0800 - 1200
				0.0	between 1200 - 1600	0.4	between 1200 - 1600	0.4	between 1200 - 1600
				0.9	between 1600 - 2000	1.9	between 1600 - 2000	2.8	between 1600 - 2000
				0.9	between 2000 - 2400	0.6	between 2000 - 2400	1.5	between 2000 - 2400
				1.7	between 2400 - 0400	0.6	between 2400 - 0400	2.3	between 2400 - 0400
				0.9	between 0400 - 0800	0.4	between 0400 - 0800	1.3	between 0400 - 0800
				4.26		4.26		8.52	
				0.0	Business Hours	0.6	Business Hours	0.6	Business Hours
				4.3	After Hours	3.6	After Hours	7.9	After Hours 8%

FUTURE 2025									
	Vd	Trucks	Per Day Entries	Entry			Exit		
Raws	50000	2500	6.9	0%	between 0800 - 1200	5%	between 0800 - 1200		
				0%	between 1200 - 1600	10%	between 1200 - 1600		
Melb	7000			20%	between 1600 - 2000	45%	between 1600 - 2000		
Colac	6000			20%	between 2000 - 2400	15%	between 2000 - 2400		
Warrnambool	9000			40%	between 2400 - 0400	15%	between 2400 - 0400		
Gippsland	2000			20%	between 0400 - 0800	10%	between 0400 - 0800		
Wagga	1000			100%		100%			
Grampians	4000								
North	5000		6.9	Entry			Exit		
SA	3000			0.0	between 0800 - 1200	0.3	between 0800 - 1200	0.3	between 0800 - 1200
Other	13000			0.0	between 1200 - 1600	0.7	between 1200 - 1600	0.7	between 1200 - 1600
				1.4	between 1600 - 2000	3.1	between 1600 - 2000	4.5	between 1600 - 2000
				1.4	between 2000 - 2400	1.0	between 2000 - 2400	2.4	between 2000 - 2400
				2.7	between 2400 - 0400	1.0	between 2400 - 0400	3.8	between 2400 - 0400
				1.4	between 0400 - 0800	0.7	between 0400 - 0800	2.1	between 0400 - 0800
				6.9		6.9		13.7	
				0.0	Business Hours	1.0	Business Hours	1.0	Business Hours 8%
				6.9	After Hours	5.8	After Hours	12.7	After Hours 93%

<p>Minimised the risk of harm from noise so far as reasonably practicable, consistently with the GED, giving regard to section 25 of the Act and to the relevant EPA guidance (e.g. publications 169.5 and 1856).</p>	<p>Sonac will where reasonably practicable locate machinery indoors and house equipment in insulated structures.</p> <p>Routine monitoring of the site’s operations and ground will be conducted during the weekly Plant Environmental Protection Systems Inspection (PEPSI) to ensure operations are compliant with the GED.</p>
<p>Considered opportunities, which may arise from the proposed expansion, to eliminate or otherwise reduce the contribution of existing noise sources</p>	<p>All blowers have been ordered with sound deadening cabinets and will be housed inside dedicated shed. This blower shed will be completely insulated with Aircell 70.</p> <p>The existing Sludge Dewatering Centrifuge will be decommissioned and replaced with a significantly quieter screw press.</p>
<p>Implemented verification processes (such as audits/inspections) to ensure that all measures and actions to minimise or otherwise manage the emissions of noise are adequately and consistently in place.</p>	<p>Site audits/inspections are conducted weekly to verify processes are environmentally compliant using the PEPSI program and includes monitoring of air, land, sound, water, and dust checks.</p>
<p>Ensured that the premises do not emit unreasonable noise, i.e.:</p> <ul style="list-style-type: none"> - the residual noise, once all measures to minimise the risk of harm from noise have been taken, does not present a risk of exceeding the noise limits set by the Environment Protection Regulations 2021 within noise sensitive areas 	<p>The Sonac site measurements of actual and predicted noise determine that the premises does not emit unreasonable noise into noise sensitive areas.</p> <p>The proposed box dryer, wastewater treatment plant and increased trucking movements from operational expansion at the premises have been assessed not to present a risk of exceeding noise limits.</p> <p>Sonac is also pursuing the implementation of a “quiet truck” procedure out the front on the highway.</p>
<ul style="list-style-type: none"> - the risk of loud sporadic noise (e.g. bangs and clashes) has been considered and adequately managed 	<p>The site does not have loud sporadic noises such as bangs, and clashes and are unlikely to occur.</p>
<ul style="list-style-type: none"> - risk of low frequency noise has been considered and adequately managed (refer to the Noise 	<p>All machinery, where practicable, is located indoors.</p>

<p>guideline - assessing low frequency noise (publication 1996)</p>									
<p>Note: The assessment against the noise limits of the Regulations requires consideration of cumulative noise from other commercial, industrial and trade facilities that also affect noise sensitive areas (for example the sewage treatment plant located in a nearby PUZ1). This may include consideration of industry development likely to be developed in empty allotments of industrial zone. Please refer section 3.3 of the Technical guide: Measuring and analysing industry noise and music noise (publication 1997) for further information.</p>	<p>Sonac is located within proximity (over the road) to the Central Highland Water (CHW) sewerage and wastewater treatment plant. Refer to attachment 5.</p> <p>An ambient noise assessment was conducted 12/12/21 @ 19:00 in clear and calm conditions (no wind) to determine effect of noise from other equipment/facilities in the area. There were no building structures in the near vicinity of the noise measurements.</p> <p>The ambient noise was measured and was determined to be 59dB(A) at the roadside of CHW that is approximately 125m from the location of the CHW aerators. Noise generation has been assessed to be operating at approximately 100dB(A) at 1m. Refer to Attachment 5.</p> <p>The CHW wastewater treatment plant has several large surface aerators operating 24hrs/7 days.</p> <table border="1"> <thead> <tr> <th><i>Land use category</i></th> <th><i>Indicators</i></th> <th><i>Objectives</i></th> </tr> </thead> <tbody> <tr> <td rowspan="2"><i>Category I</i></td> <td><i>Outdoor L_{Aeq,8h} from 10 pm to 6 am</i></td> <td><i>55 dB(A)</i></td> </tr> <tr> <td><i>Outdoor L_{Aeq,16h} from 6 am to 10 pm</i></td> <td><i>60 dB(A)</i></td> </tr> </tbody> </table>	<i>Land use category</i>	<i>Indicators</i>	<i>Objectives</i>	<i>Category I</i>	<i>Outdoor L_{Aeq,8h} from 10 pm to 6 am</i>	<i>55 dB(A)</i>	<i>Outdoor L_{Aeq,16h} from 6 am to 10 pm</i>	<i>60 dB(A)</i>
<i>Land use category</i>	<i>Indicators</i>	<i>Objectives</i>							
<i>Category I</i>	<i>Outdoor L_{Aeq,8h} from 10 pm to 6 am</i>	<i>55 dB(A)</i>							
	<i>Outdoor L_{Aeq,16h} from 6 am to 10 pm</i>	<i>60 dB(A)</i>							
<p>Considered adequately the risk to the ERS environmental value for ambient sound of 'human tranquillity and enjoyment outdoors, in natural areas', which is relevant to the adjacent Timor Nature Conservation Reserve (and other natural areas that may be affected by the noise from the facilities.</p>	<p>Sonac is in the proximity of two Nature Conservation reserves that are approximately 2.25km from the Sonac manufacturing site:</p> <ul style="list-style-type: none"> - Timor Nature Conservation Reserve, & - Havelock Nature Conservation Reserve <p>Attachment 7 show the location of the Sonac manufacturing site and Proximity to Nature Conservation Reserves.</p> <p>The level of noise measured on the boundary of the Sonac site predetermines the noise from the site will not pose a risk to the ambient sound at the reserves and any other natural areas.</p>								