



8<sup>th</sup> June 2021

Ms Deana Burn  
Industry Assessments Team  
NSW Department of Planning, Industry and Environment  
Locked Bag 5022  
Parramatta NSW 2124

By email to: [deana.burn@planning.nsw.gov.au](mailto:deana.burn@planning.nsw.gov.au)

Dear Ms Burn,

***Re: REMONDIS Tomago Resource Recovery Facility & Truck Parking Depot SSD 10447  
Response to Submissions - Compliance with NSW EPA's EfW Policy Statement***

This letter has been prepared in response to the submissions received following public exhibition of the Environmental Impact Statement for Tomago Resource Recovery Facility and Truck Parking Depot (SSD-10447). This letter addresses the NSW EPA's comment (Comment U) in relation to refuse-derived fuel (RDF). The NSW EPA required the following information:

- i. More information on the waste streams to be received at the facility for recovery of RDF, including specifications, suppliers and upstream management procedures (to support waste specifications and controls for non-conforming wastes). In order to give the EPA confidence that the Proposal is suitable and that a market does exist for RDF, the Applicant should develop specifications for the RDF product;*
- ii. A detailed contingency plan for how you plan to manage stockpiles of recovered RDF as a result of low market demand;*
- iii. Information on how you will comply with specific export and transport requirements for RDF;*
- iv. Further information on how RDF recovered from the RRF for the purpose of feedstock for thermal treatment at an energy recovery facility will meet the criteria outlined in Table 1 of the Policy Statement; and*
- v. Details of proposed potential recipients licensed to receive non-standard fuels.*

The information provided in the Response to Submissions Report prepared by Jackson Environment (dated 8<sup>th</sup> June 2021) addresses the above comments with the exception of specific information relating confidential client information and contracts, namely under points (i) and (v) above. This information has been excluded from the Response to Submissions Report due to the “Commercial in Confidence” nature of the information.

The full response to these comments, including the “Commercial In Confidence” information, has been provided below and it is requested by REMONDIS Australia Pty Ltd that this information is not made publicly available.

- i. More information on the waste streams to be received at the facility for recovery of RDF, including specifications, suppliers and upstream management procedures (to support waste specifications and controls for non-conforming wastes). In order to give the EPA confidence that the Proposal is suitable and that a market does exist for RDF, the Applicant should develop specifications for the RDF product.***

REMONDIS has long-standing relationships with large-scale generators in the Hunter region, including mines, supermarkets and shopping centre precincts. REMONDIS offers a total waste management service to its customer base, providing bins and equipment to facilitate source separation and recycling on site. As REMONDIS has only ever managed resource recovery facilities in the region, its market position has always been to maximise recycling and therefore to reduce tipping at competitor owned transfer stations and landfills. REMONDIS’ customer base is therefore well positioned to transition to an alternative solution for non-recyclable general waste that is currently landfilled.

REMONDIS currently tips approximately 80% of all residual waste at a general solid waste (non-putrescible) landfill (Newline Road, Port Stephens), and only tips the remaining waste at putrescible landfills that are geographically closer, not because the waste would be rejected if received at the non-putrescible landfill. REMONDIS has never had a load of residual waste rejected by Newline Road, Port Stephens Landfill.

REMONDIS is seeking approval to generate a maximum of 15,500 tpa of RDF, but only requires approximately half this to achieve its commercial objectives for the facility.

REMONDIS has identified the top 30 large-scale waste generators that it services in Attachment 1. The total amount of waste currently generated by these suppliers that is collected by REMONDIS is approximately 10,000 tonnes. These suppliers’ residual waste streams comply with the C&I 100% “no limit” category given the resource recovery solutions that have already been implemented by REMONDIS and third party waste service providers.

A summary of the additional recycling services known to or performed by REMONDIS for these key customers detailed in Attachment 1. This is a conservative summary as many of these

commercial operators have specialised industrial recycling services as well such as oily water and grease trap services.

REMONDIS is confident that as the region’s population continues to grow, the number of large-scale C&I customers generating dry non-recyclable general waste will only increase, allowing REMONDIS’s facility to achieve its full processing capacity over time.

**RDF Specifications**

REMONDIS’ primary off taker is expected to be Boral’s cement kiln in Berrima. Confidential advanced discussions have been held between both parties and specifications have also been supplied by Boral. They have been supplied in Attachment 2 and are confidential in nature. REMONDIS is working towards meeting these specifications.

Sampling and testing will be performed in accordance with approved Specific or General Resource Recovery Orders (e.g. Recovered Fines RRO) as appropriate. RDF QA / QC will continue to evolve and be determined in consultation with off takers Sampling and testing requirements will be specific to each off taker.

The conversion of incoming waste to outgoing products is estimated in Table 1.

**Table 1. Estimated conversion of incoming waste to outgoing products.**

Waste Stream	C&I Front lift	C&I Hook lift	Wood
Non-RDF Products Recovered	21%	61%	3%
RDF Product Recovered	71%	31%	97%
Landfill disposal	8%	8%	0%

**v. Details of proposed potential recipients licensed to receive non-standard fuels.**

REMONDIS is currently engaged in discussions with Boral, Berrima for the receipt of RDF (non-standard fuels). Boral has provided a confidential RDF specification, which REMONDIS is currently working towards achieving using domestic and international experience and expertise. The agreement has been provided in Attachment 2.

Should you have any queries, please do not hesitate to contact me.

Yours sincerely,



**Dr Mark Jackson** B.Sc. (Hons), PhD, Grad. Cert. Mgmt., Exec. Masters Public Admin. (USYD)

Director

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**Attachments:**

- 1. REMONDIS' Top 30 Customers (Confidential)
- 2. Boral RDF specification (Confidential)

**Attachment 1. REMONDIS' Top 30 Customers (Confidential)**

CUSTOMERS	GENERAL WASTE	TIMBER	ADDITIONAL RECYCLING PERFORMED BY REMONDIS
STOCKLAND GREENHILLS	888.60	-	Cardboard
GPT GROUP - CHARLESTOWN SQUARE	821.91	4.28	Cardboard, Co-mingled, Food, Green Waste, Paper, Plastic, Steel, Organic Waste
HVO - HUNTER VALLEY OPERATIONS MINE SITE	697.97	115.89	Concrete, Paper, Soil, Steel
DARACON - Multiple Sites	775.17	-	Cardboard, Green Waste, Paper
KITCHEN GROUP	767.63	-	Cardboard
MOUNT THORLEY WARKWORTH MINE	599.97	67.05	Concrete, Paper, Soil, Steel
CENTRAL COAST STADIUM	649.62	-	Paper
BENGALLA MINE	388.97	58.89	Paper, Steel
STOCKLAND GLENDALE	358.51	-	Cardboard, Co-mingled
BAYSWATER POWER STATION	243.88	100.90	Cardboard, Paper, Soil, Steel
AFFORDABLE WARDROBES - HEAD OFFICE KITCHENS PTY LTD	316.79	-	Cardboard
THIESS P/L - MT ARTHUR SOUTH MINE	261.72	34.10	Paper, Soil, Steel
MACH ENERGY - MT PLEASANT MINE	208.98	65.04	Cardboard, Paper, Soil, Steel
THIESS P/L - MT OWEN MINE	202.06	56.97	Paper, Steel
BELMONT 16'S	249.48	-	Cardboard, Paper
WYONG WORKS CENTRE - RTA	248.56	-	Cardboard, Paper and Commingled (provided by an external Waste Service Provider)
LIDDELL POWER STATION	187.74	41.52	Cardboard, Demo, Paper, Soil, Steel
DELTA COAL - CHAIN VALLEY MINE	217.67	8.28	Co-mingled, Steel
THORNTON MRF - WASTE	178.21	32.00	Concrete, Soil, Steel
JESMOND CENTRAL	207.13	-	Cardboard, Co-mingled
JOY GLOBAL - RUTHERFORD	126.54	66.60	Paper
D'ALBORA MARINA	182.70	-	Cardboard
DONALDSON AUSTRALASIA PTY LTD	181.82	-	Cardboard, Plastic
TERRACE TIMBER TRUSSES	148.43	-	Sawdust
FINGAL BAY HOLIDAY PARK	145.18	-	Co-mingled, Paper
MCCAIN FOODS SARA LEE LISAROW	126.47	3.42	Cardboard, Co-mingled, Plastic
COATES HIRE	124.02	-	Co-mingled, Paper
RAY PITSTOCK REAL ESTATE	114.54	-	Cardboard
ST HELIERS FACILITY	113.63	-	Cardboard
HUME DOORS & TIMBER	69.39	43.18	Cardboard
<b>Grand Total</b>	<b>9,803.21</b>	<b>698.12</b>	

## Attachment 2. Boral RDF Specification (Confidential)



**Specification for Solid Waste Derived Fuel (SWDF)**

- A1.1 The Supplier is responsible for sampling and testing Solid Waste Derived Fuel in accordance with the requirements of this Agreement.
- A1.2 Supplier shall ensure appropriate procedures are developed and implemented with the aim of qualifying the supply of SWDF to Boral and assuring that SWDF does not contain as far as practicable any of the following:
  - PCBs (Polychlorinated biphenyls) at a concentration less than 10 mg/kg;
  - PCPs (Phencyclidines) at a concentration less than 100 mg/kg;
  - Iodine, pharmaceutical, pesticide and biocide products in any formulation except as a constituent of another material and at levels, which are minimised as far as is reasonably practical;
  - Radioactive, nuclear, hospital and clinical waste;
  - Explosive materials including propellants and cartridges;
- A1.3 The Supplier shall ensure that the results for each monthly composite sample of SWDF delivered under this agreement as sampled in accordance with A2.2 and tested in accordance with A2.1 complies with the Specification in Table A1.1.



Table A1.1. SWDF Specification

Parameter	Specification
Gross Calorific Value (MJ/kg)	≥15.0
Ash	≤30.0% m/m
Moisture (as H <sub>2</sub> O)	≤30.0% m/m
Chlorine (as Cl)	≤1% m/m
Total Fluorine, Bromine, Iodine (as F, Br, I)	≤0.25% m/m
Sulphur (as S)	≤1.0% m/m
Particle size	≤ 100 mm in any direction
K <sub>2</sub> O (%)	1.0
Na <sub>2</sub> O (%)	0.5
Mercury (Hg) (mg/kg)	≤1.2
Cadmium (Cd) (mg/kg)	≤20
Thallium (Tl) (mg/kg)	≤20
Total Group II metals (mg/kg) Cadmium (Cd) + Thallium (Tl)	≤30
Copper (mg/kg)	≤1000
Lead (mg/kg)	≤1000
Total Group III metals (mg/kg) Antimony (Sb) + Arsenic (As) + Cobalt (Co) + Copper (Cu) + Chromium (Cr) + Lead (Pb) + Manganese (Mn) + Nickel (Ni) + Vanadium (V)	≤3000

1) All parameters to be reported on as received basis



A1.4 The supplier is permitted for just two (2) of the gross calorific value or moisture results in any of the twelve (12) consecutive monthly composite samples to be outside the values specified in Table A1.1 but any such result must comply with the following limits:

Gross calorific value	$\geq 10.0$ MJ/kg
Moisture (as H <sub>2</sub> O)	$\leq 35.0\%$ (m/m)

## Part 2

### Quality Assurance for SWDF

#### A2.1 Supplier Test Methods

A2.1.1 The Supplier shall ensure that the test methods in Table below are done according with relevant standards and used to demonstrate compliance with the Specification:

Parameter	Test Method
Gross and Net Calorific Value	[TBA based on Isothermal Calorimetry]
Moisture content	[TBA based on Gravimetric Method]
Chlorine	[TBA based on Potentiometric Titration, XRF or Analysis by IC]
Sulphur	[TBA based on Leco Carbon Sulphur Analyser]
Carbon Content	[TBA]
Ash	[TBA]
K <sub>2</sub> O, Na <sub>2</sub> O	[TBA]
<u>Particle Size</u>	[TBA including % Passing 100 mm sieve]
<u>Metals – Mercury,</u> <u>cadmium, thallium, copper,</u> <u>lead, Total Group II metals,</u> <u>Total Group III metals</u>	[TBA based on ICP]

[TBA = To Be Agreed - The parties will agree detailed sampling and test procedures]

A2.1.2 The Supplier shall agree in writing with Boral any changes to the test methods and procedures for testing and sampling SWDF as specified in A2.1 and A2.2.

A2.1.3 The Supplier shall ensure that testing of all parameters in table A1.1 is undertaken according to the requirements and by a laboratory certified to NATA for the test procedures specified above. This requirement does not apply to samples tested as per A2.2.2 below.

#### A2.2 Supplier Sampling

A2.2.1 The Supplier shall ensure that sampling is carried out in accordance with EN14778:2011 “*Solid biofuels – Sampling*” or EN15442:2011 “*Solid Recovered Fuels - Methods for sampling*” as relevant to the specific type of fuel supplied. This will typically mean that for solid biofuels one 3-Litre sample bucket will be taken as a sample from every 125 tonnes of solid biofuel fuel despatched and for solid recovered fuels one 3-Litre sample bucket will be taken as a sample from every 70 tonnes of solid recovered fuel despatched. Every 3-litre sample will be sealed and labelled. All samples will be sent to an external laboratory. Two composite samples will be produced following guidelines from EN14780:2011 “*Solid Biofuels – Methods for sample preparation*”. One sample will be tested for all parameters specified in Table A1.1. The second sample will be retained as



reference for a period of 3 months stored in a correctly labelled and suitable sealed container.

A2.2.2 The Supplier shall ensure that the particle size analysis test is carried out at least weekly using a representative composite sample made up from the samples taken during that week and shall provide the test result to Boral by the next working day.

A2.2.3 The Supplier shall agree with Boral on the details for final procedures of sampling and testing SWDF as part of Supplier's QA/QC system.

### **A2.3 Supplier Reporting**

A2.3.1 The Supplier shall ensure that tests for all parameters in table A1.1 are carried out on each monthly composite sample of SWDF using the test methods define in A2.1. The Supplier shall provide Boral in writing with the individual monthly composite sample results within 21 days of the collection of the last sample within the month.

A2.3.2 Any dispute as to the quality or specification of the SWDF which cannot be amicably resolved between the Seller and the Buyer within 60 days either party may refer such dispute for determination by an Expert agreed between the parties. Such person shall act as expert and not arbitrator and make such determination within 20 days of his appointment and his determination shall be final and binding on both parties. The expert shall determine the issue of costs, which shall also bind the parties.