

# Operational Risk Assessment

<b>Site:</b> Chipping Norton	<b>Date:</b> 23/02/2022	<b>Assessor/s:</b> Michael Williams & Adam Springfield
<b>Company:</b> Benedict Recycling Pty Ltd		<b>Location on Site:</b> Biofuel Plant
<b>Job Task:</b> Biofuel Plant		

PROBABILITY (Likelihood of Occurrence)	CONSEQUENCE (Severity of Result)
A. Excessive	1. Rectification costs
B. Frequent	2. Non-compliant material delivered
C. Regular	3. Reject and dispose
D. Occasional	4. Breakdown/damage
E. First time	5. Lost time

PROBABILITY → CONSEQUENCE ↓	A	B	C	D	E
1	High	High	High	High	Medium
2	High	High	High	Medium	Low
3	High	Medium	Medium	Low	Low
4	Medium	Medium	Low	Very Low	Very Low
5	Medium	Low	Very Low	Very Low	Very Low

## Hierarchy of Control

Elimination	Most Effective ↑ Least Effective
Substitution	
Isolation	
Engineering	
Administrative	
PPE	

## Risk Assessment Rankings

High	Identify and communicate with manager immediately
Medium	Consult with day manager and take corrective action
Low	Communicate issues in daily toolbox meetings
Very Low	Communication and retraining

JOB STEP/ PROCESS	DESCRIPTION OF HAZARD	IMPACT	INITIAL RISK RATING	CONTROL MEASURES	RESIDUAL RISK
Fuel Receival at Boral Berrima	Non-compliant inclusions in Fuel	Non-compliant with the WWDF Boral Specification. Decreases likelihood of emissions compliance Lost time with rehandling, transport, and Fuel reprocessing. Could create fugitive dust.	High	Three points of inspection on Fuel receival at all sites. Three points of inspection on internal Fuel transfer at Chipping Norton. Multiple visual inspections by production plant operator throughout daily productions. Daily sampling and testing	Low
	Steel	Non-compliant to the WWDF Boral Specification. Operational damage to fuel production plant and equipment and excessive wear. Lost time with transport, rehandling and reprocessing. Steel in furnace slag	Low	Three-point inspection on raw feed. Inspect magnets and bins daily. Inspect finished product before stockpiling. Lab test before delivery.	Very Low

## Operational Risk Assessment

	Contamination e.g., Radioactive, nuclear, hospital and clinical waste etc.	Neither site is licensed to take these items. Non-compliant to the WWDF Boral Specification	Medium	Three-point inspection of raw feed. Three-point inspection of finished product. Sample/test in lab before delivery.	Very Low
	Exclusion of sleepers, telegraph poles, power poles and creosote materials	Non-compliant material supplied to Boral. Creates fugitive dust. Creates non-compliant emissions	Med	First point of inspection protocol – training. Stockpile inspection prior to shredding. Hand picking through process.	Very Low
	Missed non-inclusion timbers at presorting stage.	Non-compliant material supplied to Boral. Potentially creates non-compliant emissions.	Low	Identify/inspections. Identify, Sort and discard. Three-point inspection at Chipping Norton.	Very Low
	Excessive PVC/MDF or Formaldehyde materials.	Non-compliant material supplied to Boral. Fugitive dust processing. Fugitive dust on customer site.	Med	Identify/inspections. Sort and discard. Three-point inspection at Chipping Norton.	Very Low
Waste Pre-sorting for fuel production	Not sorting waste for fuel feedstock to internal testing plan in line with Boral specification.	Non-compliant material supplied to Boral. Cost implications due to resort/reject load. Time lost. Failed test results.	Med	Three-point inspection at all sites. Three-point inspection at Chipping Norton. Visual inspections/production process.	Low
	Not rejecting and discard non-compliant materials.	Lost time. Cost of rehandling.	Med	Three-point inspection at all sites. Three-point inspection at Chipping Norton. Visual inspections/production process.	Low
	Untrained Staff or Staff error.	Lost time. Cost implications of rework. Unnecessary transport cost.	Low	Induct and train staff in sorting. Preload inspection.	Very Low
Fuel Production	Mechanical failure impacting quality.	Non-compliant material produced. Lost time and extra rehandling costs.	Med	Daily prestart on WWDF Plant to identify areas of concern. Frequent visual inspections of raw feed and finished product before stockpiling. Plant to be regularly serviced/maintained.	Very Low
	Plant settings tampered with.	Excessive fugitive dust. Blockages. Lost time/revenue.	Med	Daily prestart on WWDF Plant and mobile plant. Visual inspection of raw feed. Visual plant inspection throughout the day. Sensory check of plant and material. Only trained staff to operate plant	Very Low
	Manual picking. Unclean product.	Non timber inclusions in finished product. Blockages in plant. Damage to plant. Lost time/revenue.	Med	Daily start up toolbox meeting. Ongoing supervision of staff. Visual inspections of finished product prior to stockpiling. Stockpile inspection before loading out.	Very Low

## Operational Risk Assessment

Product sampling and Test Procedure.	Protocols not followed. Incorrect sampling method used. Cross contamination through vessels.	Failed test results. Lost time and cost. Retest/cost rectification.	Low	Sampling auditing. Regular toolbox and training of staff. Supervision.	Very Low
	Delay in reporting	Rejected loads (at Boral) Lack of quality control. Inconsistent results	Low	Sampling/auditing. Regular toolbox and training of staff. Supervision.	Very Low
Stockpiling	Product stockpiled as tested prior to testing	Possible contamination of main stockpile. Potential to stockpile material in wrong area and receive incorrect batch number.	Med	Stockpiling in batch number areas. Daily toolbox.	Low
	Contamination of final product. Material placed in wrong area. Incorrect material loaded out under incorrect batch number.	Bucket contamination. Non-conforming stock. Stock/batch number assigned incorrectly. Wrong material delivered. Lost time and extra costs incurred.	Med to High	Only trained personnel to work on plant. Product stockpiled by same machines. Bucket inspected for cleanliness in prestart for day. Visual inspect finished goods before placing in stock area. Area (daily) and batch number signage checked by supervisor before production run. Preloading approval for end load to be sent from supervisor before loading out. Dispatch docket to be signed off before truck departure. Supervisor inspections throughout day.	Low
Test Results	Reporting errors by lab staff.	Lost time and revenue for Benedict	Med	Results read and checked for accuracy by trained staff.	Very Low
	Samples incorrectly labelled	Non-conforming material sent to Boral	Low	Train lab staff in sample labelling and storage. Identify and question unusual results	Very Low
	Results lost or not properly recorded on database.	Cost of retesting Confusion and loss of confidence in supplier by Boral.	Low to Med	Daily sample split in case retest is required. Lab manager to check integrity and accuracy of records. Monthly report review and discussion.	Very Low
Loading	Contamination of WWDF Incorrect material loaded. Wrong batch number assigned. Material non-conforming released too early.	Rejected load returned. Lost time and money. Inaccurate reporting.	Med	Trained operator in load zone. Clear batch and stock signs. Final dispatch approval supervisor. Separate zone for material (Under test/Failed results.)	Low

## Operational Risk Assessment

Exit Weighbridge	Lack of detail on paperwork. Truck not weighed correctly.	Cost of return load or waiting time at Boral. Potential dispute with Boral over conflicting information.	Low	Two-way communication supervisor to bridge regarding product code and batch confirmation. Bridge to check information prior to departure. Weighbridge calibrated yearly Weighbridge staff trained to weigh B Double trucks on shorter length weighbridges	Very Low
Transport to Boral	Material delivered to wrong destination or Boral location. Driver housekeeping/inductions. Load covered and truck cleaned. Poor or lack of COR procedures and records. Alcohol or drug impaired drivers.	Time and cost of re delivery to correct location. Monthly meeting with contractor to review start up procedure/COR. Complaints from motorists and potential fines. Potential accidents. EPA and RMS issues.	Med	COR monthly audits. Trained weighbridge staff/inductions Random drug and alcohol test. Using only approved transport providers.	Very Low
Reporting	Incorrect information given. Lack of confidence in Benedict by Boral.	Cost of wasted time correcting information. Reluctance from Boral to increase contract volumes. EPA issues.	Low	Daily/weekly reports checked. Test result and batch number reconciled weekly. Monthly audit meeting with Boral. Annual audit on site.	Very Low