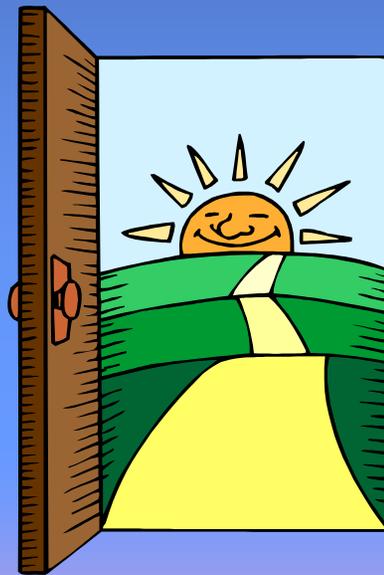
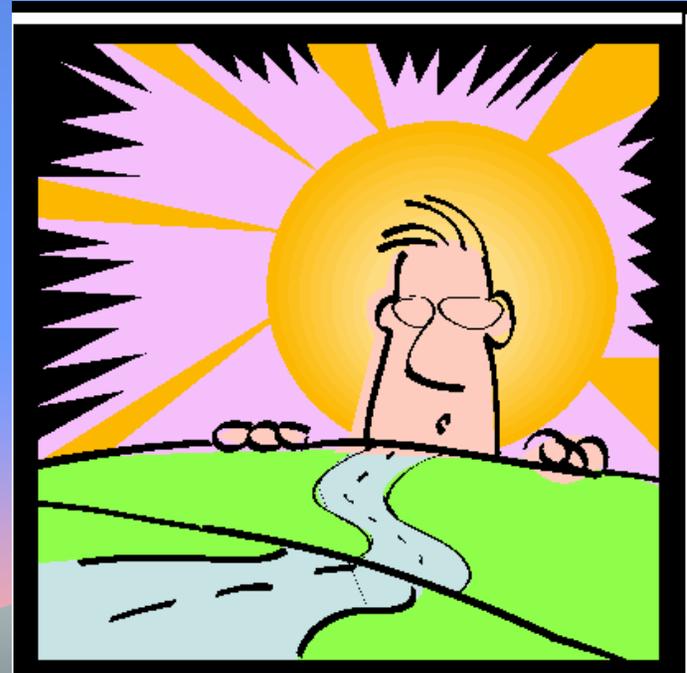


C&D Debris Processing Regulations 101



Chapters

- 1 Background
- 2 C&D Debris Characteristics
- 3 The Regulations
- 4 The Aftermath
- 5 Q & A



Chap 1. Background

CIWMB Vision & Mission



- **Our Vision**

- A sustainable California, where our unique natural environment is preserved for future generations.

- **Our Mission**

- To reduce waste, promote the management of all materials to their highest and best use, and protect public health and safety and the environment, in partnership with all Californians.

Statutory Authority

40191. (a) Except as provided in subdivision (b), "solid waste" means all putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, dewatered, treated, or chemically fixed sewage sludge which is not hazardous waste, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes. (b) "Solid waste" does not include any of the following wastes: (1) Hazardous waste... (2) Radioactive waste... [or] (3) Medical waste...

The Objective

Section 17380.1 Purpose. (a) It is the board's intent in adopting this Article to encourage the recycling and reuse of C&D debris and inert debris that may otherwise be disposed in a solid waste disposal facility.



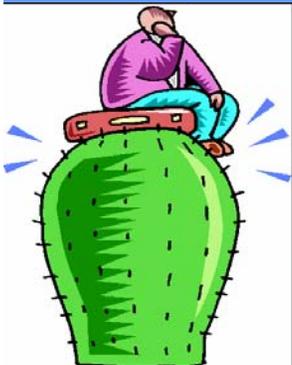
Why Do We Have the Tiers in the First Place?

To Offer Something:

- Less than a Full Permit
- Less than Monthly Inspections for Operations
- Less Review Time By Public Agencies
- Less Regulatory Start-Up Costs

Examples:

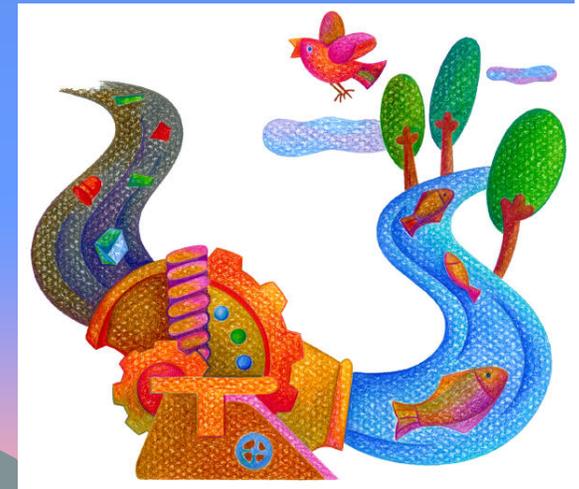
Compostable Material Operations
Petroleum Contaminated Soil Operations
Nonhazardous Ash Transfer
Limited Volume Transfer Operation
Small Volume C&D Debris Processing



Why Do We Have the Tiers in the First Place? (cont'd)

Also:

- To be “Business Friendly” to Private Operators and Small Businesses
- To Assist Jurisdictions in Meeting their AB 939 Goals
- Address “Over-regulation”



Why Do Operators Like the Registration Tier?

- LEA CEQA Completeness Review
- Enforcement Actions vs Permit Terms & Conditions
- Lower Associated Costs
- Minimal Application & Permit Review Time
- No Board Permit Review or Approval
- No Public Hearing*

*Later added to CDI processing regulations



What Do The C&D Processing Regs Do?

They:

- Place sites into regulatory tiers,
- Define new CDI transfer/processing operations and facilities,
- Establish minimum operating standards, &
- Define recycling activities that are not subject to Board regulation.



What the Regs Created

- Inert Debris Processing
- CDI Transfer/Processing
- C&D Wood Debris Processing
- Emergency CDI Debris Processing
- Inert Debris Recycling Center Definition
- CDI Debris Recycling Center Definition



Milestones in the Regulatory Process

- Jan 2002, the Board voted (6-0) to begin the 45-day comment period at 100-300 tpd Registration tier for CDI Processing.
- Nov 2002 the Board added a Phase-In provision to the Full Permit Tier
- Dec 2002 the Board added an 80% Recycling Req. to the Registration Tier
- Jan 11, 2003 - The Crippen Fire
- Jan 14, 2003 the Board Changed the Recycling Req. to 70% for the Registration Tier
- AB 240 Reyes (1/30/2003)

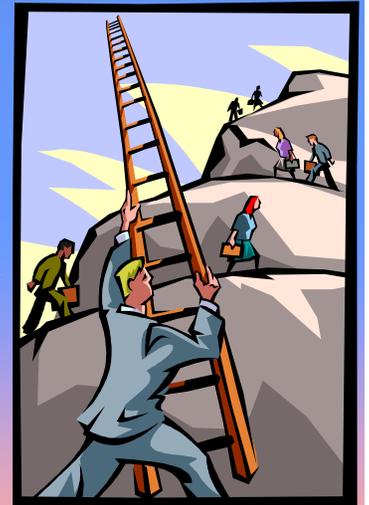


Milestones in the Regulatory Process (cont'd)

March 18, 2003 The Board directed staff to make changes to the proposed regulations.

Change the Permit Thresholds for CDI processing to:

- $0 < 25$ tpd = EA Notification Tier
- 25 tpd < 175 tpd = Registration Tier
- 175 tpd and more = Full Permit Tier



Milestones in the Regulatory Process (cont'd)

ALSO:

1. Change the Registration Tier residual percentage from 30% to 40%;
2. Require mandatory OSHA training for LEAs;
3. Require operator to include the Injury, Illness and Prevention Plan (IIPP) in the "Plan or Report";
4. Add "3 Strikes" language for operators found by the LEA to exceed certain limits;
5. Amend the "processing" definition;
6. Add a Public Hearing/Community outreach requirement by the LEA;
7. Add language regarding the origin of C&D-like material;
8. Reverse the Full Permit phase in time limits from 3 years with up to a 2 year LEA extension to - 2 years & up to a 3 year LEA extension;
9. Add a Fire Plan requirement;
10. Add tonnage records based on actual weight;
11. Add unannounced and randomly scheduled inspection language; &
12. Amend storage standards.

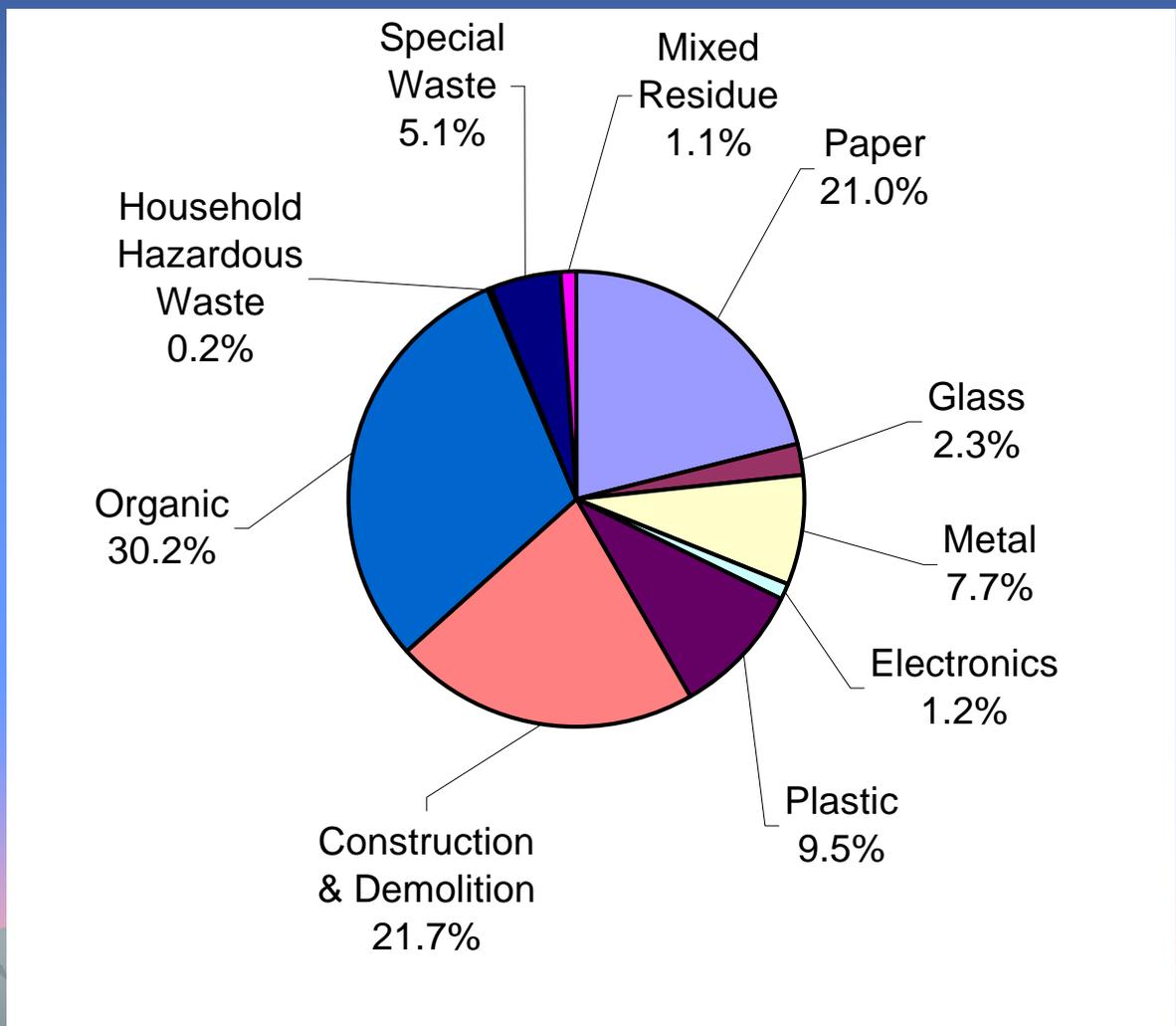


Milestones in the Regulatory Process (cont'd)

- Approved by the Office of Administrative Law on 7/10/03
- Effective on 8/9/03



Chap 2. C&D Debris Characteristics 2003 Waste Characterization Study



2003 MSW Components

- Organic - 43.9%
- Paper - 21.4%
- Plastic - 9.8%
- C&D - 10.5%
- Metal - 6.5%
- Mixed Residue - 1.8%
- Glass - 2.8%
- House Hazardous - .2%
- Special Waste – 1.1%
- Electronics – 2.0%



Main Complaints

Odor , Vectors, Noise, Traffic, & Dust

What are the Environmental Indicators for C&D and MSW Processing Facilities?

- AIRBORNE PARTICLES/FIBERS
- CONTACT WATER
- FIRE
- GENERAL SAFETY
- **LEACHATE: MSW Only**
- LITTER :
- NOISE
- NUISANCE
- **PATHOGENS: MSW Only**
- TRAFFIC
- **VECTORS: MSW Only**



125 Tons of Municipal Solid Waste



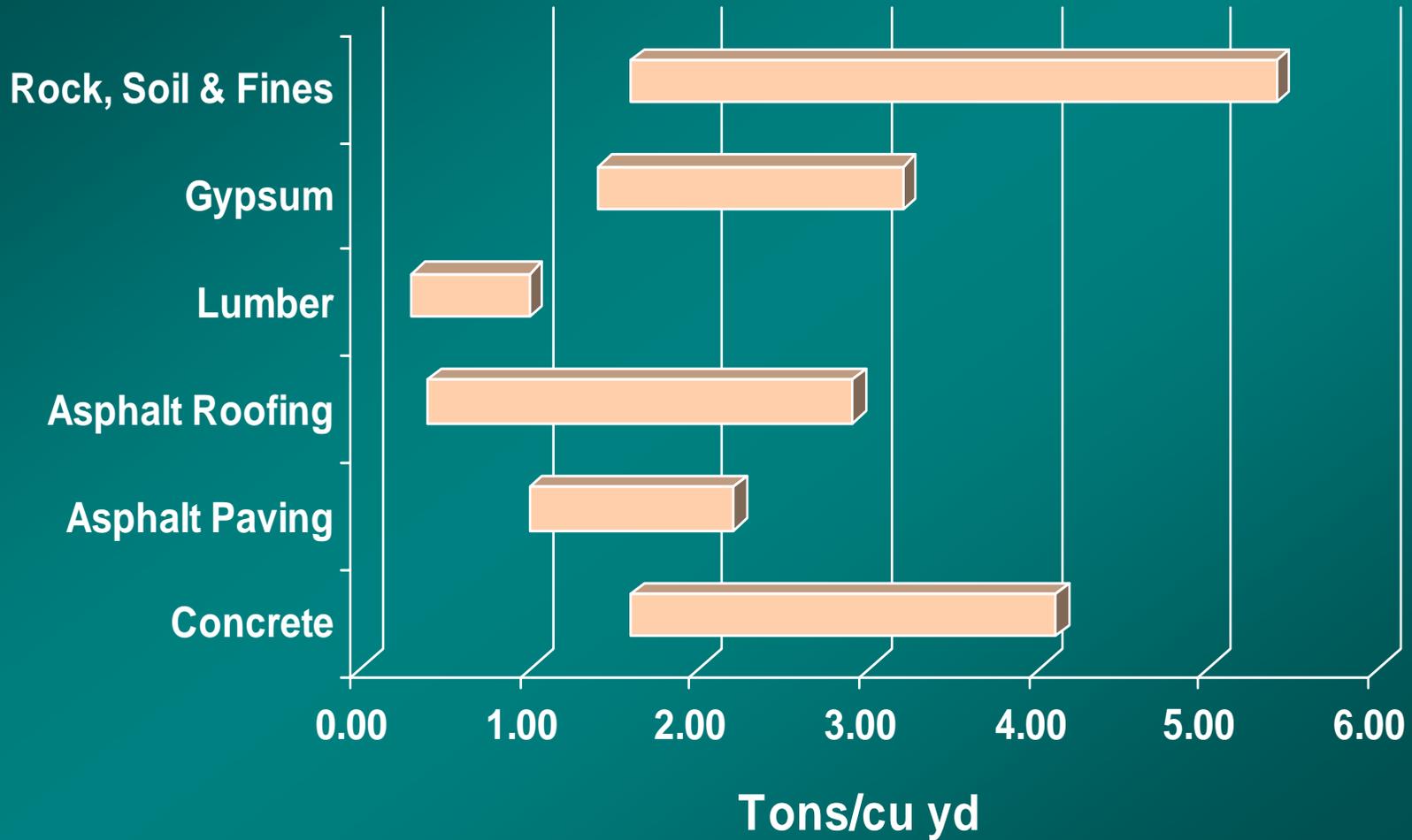
100 Tons of C&D Material



100 Tons of Inert Material



Density of C&D Materials





















Ten Most Prevalent Material Types in California's Overall Disposed Waste System, 2003

Material Type	Est. Pct.	Est. Tons	Cumulative Pct.
Food	14.6%	5,854,352	14.6%
Lumber	9.6%	3,881,214	24.2%
Uncoated Corrugated Cardboard	5.7%	2,312,147	29.9%
Remainder/Composite Paper	5.7%	2,274,433	35.6%
Remainder/Composite Organics	4.4%	1,752,803	40.0%
Leaves and Grass	4.2%	1,696,022	44.2%
Remainder/Composite Construction and Demolition	3.6%	1,452,009	47.8%
Other Miscellaneous Paper	3.5%	1,400,526	51.3%
Bulky Items	3.4%	1,348,224	54.6%
Remainder/Composite Metal	2.5%	1,018,242	57.1%

C&D Composition 2003

C&D Disposal Now at 21.7%

Lumber	9.6%
Remainder/Composite C&D	3.6%
Concrete	2.4%
Rock, Soil, & Fines	2.4%
Asphalt Roofing	1.9%
Gypsum Board	1.7%



Main Complaints: Noise, Traffic, & Dust

C&D Generation Forecasts

- Construction Employment Factors
- Remodels & New Housing Units Permitted
- Population Increases
- Infill Necessity
- Public Works Construction



Correlation for Increase in C&D Generation?

Chap. 3 The Regulations

Part Tests

The First Test is Source Separated and Separated for Reuse Material only,

the Second Test is <10% Residual Material,

the Third Test is the <1% Putrescible Material

Fourth Test is "Separated at the Point of Generation"



CDI Recycling Centers

No Tonnage Limit

No State Minimum Standards

Storage Limits:

Storage Plan May Be
Required

30 day Unprocessed

1 year Processed

Tests:

Must meet 1-3 Tests



Plus 4th Part "Separated at the Point of Generation"

Inert (Type A) Debris Recycling Centers

No Tonnage Limit

No State Minimum Standards

Storage Limits:

Storage Plan May Be Required

6 months Unprocessed

18 months Processed

Tests:

Must meet 1-3 Tests

Commingling "OK"



Small Volume CDI Processing Operation

EA Notification (Non Permit) Required

Incoming Tonnage under 25 tons per day (tpd)

State Minimum Standards (SMS) Apply

Storage Limits:

Plan Required

15 days Unprocessed

1 year Processed Tests:

Must meet 1 and 3 Tests

Commingling "OK"



Medium Volume CDI Processing Operation

Registration Permit Required

Incoming Tonnage at 25 tpd up to 175 TPD

SMS Apply plus Facility SMS

Storage Limits:

15 days Unprocessed

1 year Processed

Plan Required

Tests:

Must meet 1, 3 and 5 Tests

Commingling "OK"



Large Volume CDI Processing Operation

Full Permit Required

Incoming Tonnage at 175 tpd or more

State Minimum Standards Apply plus Facility SMS

Storage Limits:

15 days Unprocessed

1 year Processed

Report Required

Tests:

Must meet 1 and 3 Tests

Commingling "OK"



DIFFERENCES IN REGULATORY OVERSIGHT

C&D

Source Separated
 >1% Putrescibles
 60% Recycling Req.Registration Tier
 Scales Required
 IIPP in Application
 “3 Strikes” Requirement
 Storage Limits on Recyclables
 Amount Limits on Materials
 Fire Plan Requirement
 Public Hearing for Registration Tier
 1 Time Phase-in 4 Existing Sites
 Origin of Material

MSW

Not Applied
 Not Applied



REGISTRATION TIER THRESHOLDS

25 – 175 TPD

15 TPD – 100 TPD

Small Volume C&D Chipping & Grinding Operation

EA Notification (Non Permit) Required

Incoming Tonnage under 200 tpd

State Minimum Standards Apply

Storage Limits:

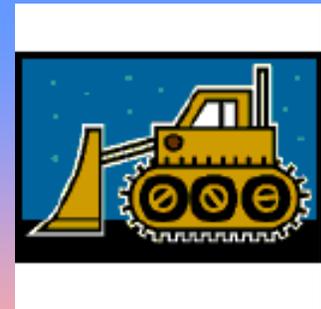
Plan Required

30 days Unprocessed

90 days Processed

Tests:

Must meet 1 and 3 Tests



Medium Volume C&D Chipping & Grinding Operation

Registration Permit Required

Incoming Tonnage 200 tpd to 500 tpd

State Minimum Standards Apply

Storage Limits:

30 days Unprocessed

90 days Processed

Plan Required

Tests:

Must meet 1 and 3 Tests



Large Volume C&D Chipping & Grinding Operation

Registration Permit Required

Incoming Tonnage 500 tpd or more

State Minimum Standards Apply plus Facility SMS

Storage Limits:

30 days Unprocessed

90 days Processed

Plan Required

Tests:

Must meet 1 and 3 Tests



Inert Debris Processing Operation (Type A)

EA Notification (Non Permit) Required

Incoming Tonnage under 1500 tpd

State Minimum Standards Apply

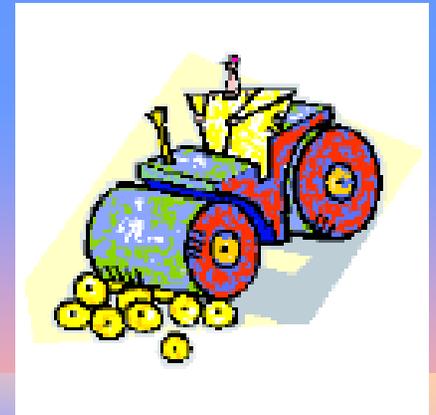
Storage Limits:

6 Months Unprocessed

18 Months Processed Tests:

Must meet 1 and 3 Tests

Plan Required



Inert Debris Processing Facility (Types A&B)

Full Permit Required

Incoming Tonnage at 1500 tpd or more

State Minimum Standards Apply plus Facility SMS

Storage Limits:

6 Months Unprocessed

18 Months Processed

Report Required

Tests:

Must meet 1 and 3 Tests



Chap 4. The Aftermath

Who Would Not Benefit By Over-Regulation of C&D Processing?

- C&D Recyclers
- Construction/Building Industry
- Environment
- Local Jurisdictions responsible for
AB 939 Implementation
- Public
- Small business owners



What Areas Need Research Prior to Re-evaluating the Regs for Higher Permit Tier Thresholds?

- C&D vs. MSW Threat Equivalency
- C&D vs. MSW Weight to CY Ratio
- Fire Standards for C&D Piles
- Hazards in C&D Debris
- Impacts to Franchise Agreement Holders

Chap. 5

Questions and Answers



Construction Work sites that recycle their own C&D are not subject to the CDI processing requirements.

But what if the activity accepts off-site debris for recycling into a new structure?



Choices

- The site becomes a regulated facility.
- Importation & use of C&D debris is allowed.

Answer

- The Regs allow the importation and use of C&D Debris
 - But, it Can't remain at the site after the construction work is completed.

REASON: This reg prevents processing disguised as construction activities.



Is on-site storage of inert manufacturing debris regulated by the CIWMB?



Choices

- Yes
- No
- It Depends

Answer

- Manufacturing is not regulated by the Board
 - Board regulates sites that receive, store, handle, transfer or process C&D debris and inert debris.
- Regional Water Board may have authority



If a recycling center exceeds storage limits does it get bumped up to a permitted facility?



Choices

- Yes, it would need a full SWFP.
- No, it is outside of our regulatory authority.

Answer

- No.
 - The site could get a Storage extension, or
 - It can be issued an Order to cease the illegal disposal.



How do I determine how long debris has been stored?



Choices

- By checking the required records.
- By observing the webs made from the *Argiope aurantia* spider on the storage piles.

Answer

- **Operators are required to keep adequate records.**
 - inspect incoming and outgoing records to determine the storage time length.
 - bottom of a pile “last in, first out” rule of pile processing even though records reflect a turn over of debris within the regulated storage limits.
 - As long as there are no public health, safety and environmental concerns
 - LEA focus s/b residual removal, putrescibles, and whether there is MSW on site.
 - The Key is that storage limit non-compliance means disposal – LEA can take action for illegal disposal.

If a site exceeds the storage time limits is the debris considered to be disposed?



Choices

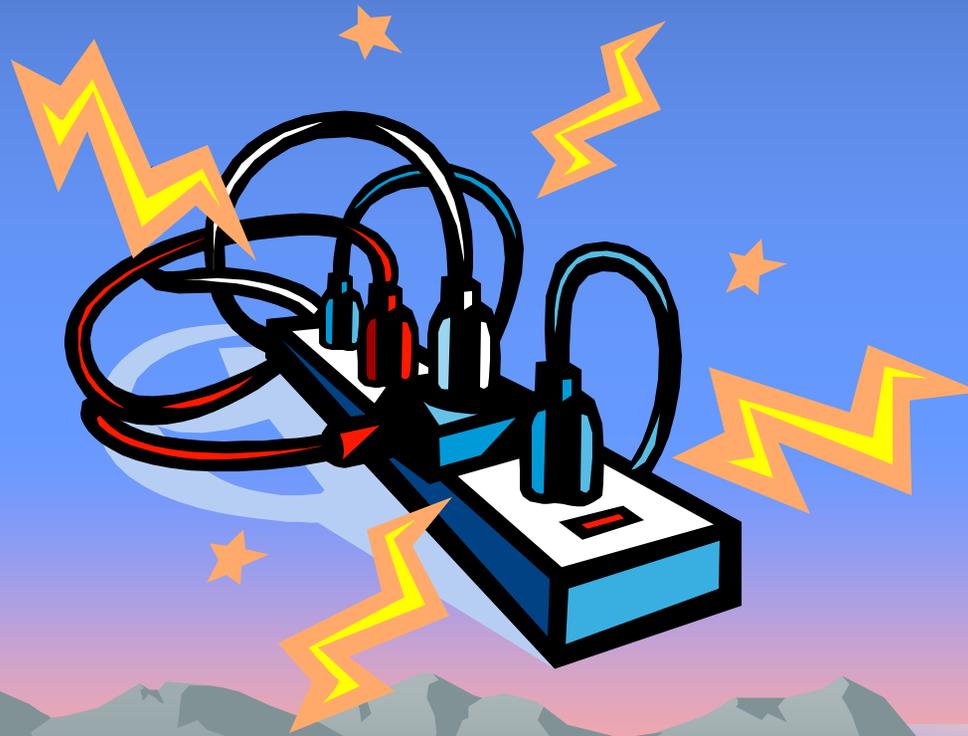
- No, material is disposed of only when it reaches its final destination.
- Yes, it is considered to be disposed so that the LEA can take enforcement action.
- Yes, but only during a leap year.

Answer



- **Yes and no.**
 - Yes, It is considered disposal so that the LEA can take enforcement action
 - No. Because the material is disposed only when it reached its final destination of placement in a permitted disposal facility
 - But not if routed to a processing center that recycles it, or
 - It is allowable fill at an inert debris engineered fill operation.

Can an operator lawfully exceed
the total amount of material
allowed on site?



Choices

- Yes, but only when Mercury is retrograde.
- No, unless it is specified in the Plan or Report.
- No, the amount is determined by the maximum TPD X 30 days.

Answer



- **No.**

- The Amount is determined by max tpd times 30 (days)
- Or, the site could apply for a Full SWF permit under Article 6.0

Do I have to accept a deficient Operation Plan?



Choices

- Yes, what you see is what you get.
- No, you can reject it as inadequate.
- Yes, because as LEA I don't have discretionary decision making authority in the EA Notification tier.

Answer



- **No.**

- The EA Notification can be rejected if the Plan is not complete and accurate.
- See section 17383.4 (f)
- So, The Operator needs to comply w/notification req. which include submittal of a complete & current operation plan. If it is not complete & correct, the operator is in violation of the notification requirement.

What commingled debris can be accepted at a CDI recycling center?



Choices

- Cardboard, Wood & Metal
- Cardboard, Wallboard, Hardboard, Waste Board
- Newspaper, bottles and cans

Answer

- **Recycling centers must have debris separated at the point of generation**
 - **Regs allow commingling in a single container of cardboard, wood and metal.**



**What is “serial processing”?
Should I be concerned with
it?**



Choices

- It is processing of a Fiber-filled material.
- It is when a site requires more processing at a second location.

Answer

- Serial Processing is when a Site records less than 10% for disposal, yet some materials require further processing at a second location.
 - Remedy - Check the Recycling Rate at the 2nd location and have the operator put it In writing!



What differs between the terms:

“C&D waste” and “C&D debris”?



Choices

- C&D waste can contain $> 1\%$ Putrescible material.
- C&D debris is a subset of C&D waste.
- There is no difference.

Answer

C&D Waste can be all the waste generated at a C&D site. Debris is a subset, if it is the portion that contains recyclables and less than 1% putrescible Material



What are the main differences between the C&D regulations - the Transfer/Processing regulations & the Compostable Materials regulations?



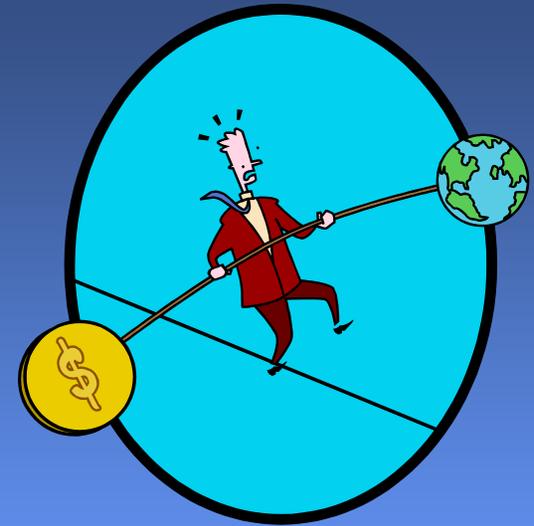
Choices

- The C&D regs do not allow MSW, greenwaste, or >1% putrescible material.
- The C&D regs require an operations Plan.

Answer

The Debris Limitations:

- NO GREENWASTE
- NO MSW
- LESS THAN 1% PUTRESIBLES
- The Source must be from “Construction Work”



A home remodel roll-off bin contains C&D debris but also a neighbors garage items like toys, weights, a surfboard, and clothes. Are all these materials considered to be C&D debris?



Choices

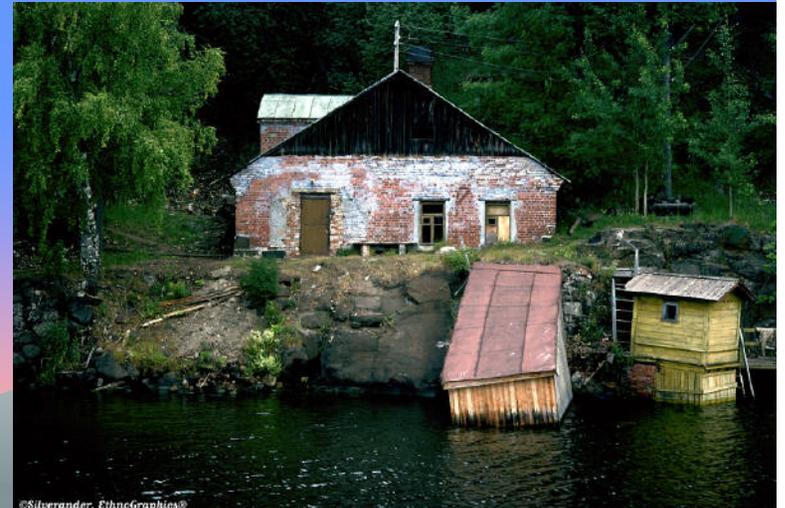
- No, the material does not meet the definition of C&D debris.
- Yes, because the intent in having the bin was to collect the construction work.
- Yes, because the material is “C&D Like”.

Answer

No, the material doesn't meet the definition of C&D debris because some of the material does not result from "construction work" as defined in 17381(g) and the other materials do not meet the definition of C&D debris or inert debris.



A storage shed made of stucco is demolished along with the contents of the storage shed, i.e.; lawnmower, rakes, lawn chairs, bikes, and shovels. Is this material considered to be C&D debris?



Choices

- No, the contents of the storage shed must be recycled beforehand.
- Yes, because it comes directly from construction work.

Answer

Yes, because it comes directly from construction work - demolition of a shed. and does not include prohibited material (Arguably, the contents of the shed, which are typical items found in a storage shed, could be described as “equipment” and “furnishings,” as described at 14 CCR 17381(e)(1)(A).)



Are C&D processing sites at landfills regulated under this Article?



Choices

- No, the site must be incorporated into the permit as a separate unit.
- Yes, as of the effective date of the regulations.

Answer

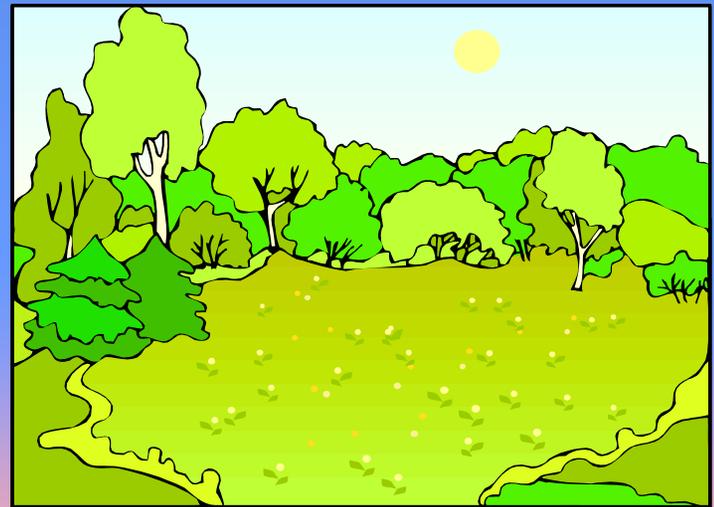
The Site should be included as a unit within the landfill permit.

- Existing sites must amend their RDSI promptly.
- If it is a new activity – review for CEQA

If not included as a unit w/in the landfill permit, then it will need to be permitted separately.



Acceptance of what waste stream commonly kicks CDI processing sites over to the transfer processing facility regs?



Choices

- Greenwaste
- Any MSW
- Treated Wood

Answer



- Any non-C&D Debris –
But mostly Greenwaste.
 - C&D is a drier material than urban green waste and it poses lesser impacts than greenwaste

Why is greenwaste prohibited at CDI processing sites when most of the operators would like to accept the material?



What if the greenwaste is part of a demolition project?

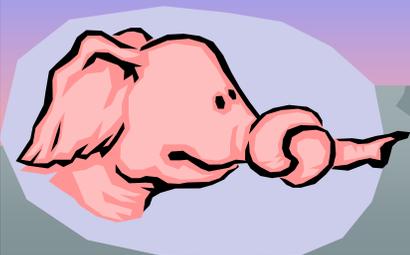


Answer

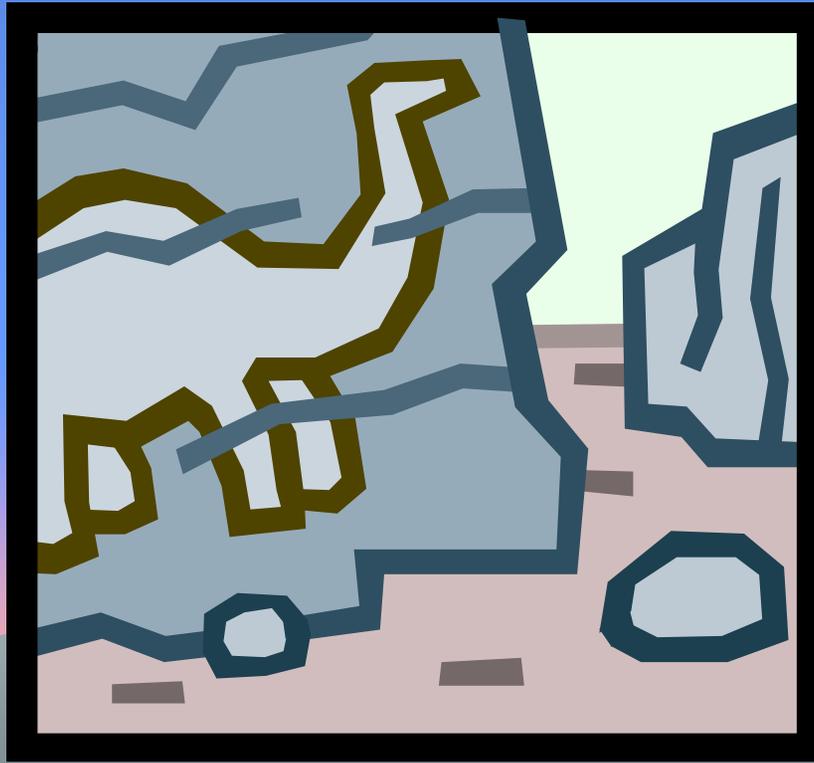


- Landscape debris is not C&D debris. Flies and odors are produced along with greenwaste
 - It is subject to Article 6.0 through 6.35 or the Compostable Materials regulations.
- (next question)
- Landscape debris can only be commingled if it results from construction work
 - (landscaping material bulldozed along with a building and/or parking lot)
 - Note: there is still a 48 hour removal requirement of putrescible material in force.

An Operator can accept both materials under a transfer/processing permit



**Is Gypsum Wallboard inert?
Is it putrescible?**



Choices

- Gypsum wallboard is inert and never putresses.
- Gypsum could be considered to be inert under certain circumstances but could putress under anaerobic conditions with moisture.

Answer

- **Generally speaking, mineral gypsum (calcium sulfate) is an inert material.**
 - Its biodegradation can produce significant quantities of toxic hydrogen sulfide (H₂S) gas when buried in landfills. Therefore, gypsum wallboard is not an inert debris.
 - Under anaerobic conditions with moisture, gypsum wallboard can be putrescible
 - (Putrescible Wastes” means solid wastes that are capable of being decomposed by micro-organisms with sufficient rapidity as to cause nuisances because of odors, vectors, gases or other offensive conditions, and include materials such as, but not limited to food wastes, offal and dead animals. The EA shall determine on a case-by-case basis whether or not a site is handling putrescible wastes.)

**If an LEA Finds Wallboard at the Site is Putressing –
then it is Putrescible!**



Is neighborhood clean up debris, beach, river and marsh cleanup debris, & Cal Trans road side pick-up bags considered to be C&D?

What about street sweeping debris, is it inert?



Choices

- Yes, it isn't MSW, so it must be C&D debris.
- No, these wastes are not related to construction work or inert debris.

Answer



These wastes are not related to construction work

- Neighborhood cleanup debris typically consists of appliances, furniture, mattresses and box springs, tires, BBQ grills and other outdoor items, bicycles, lumber, PVC pipe, and appliances.
- Beach, river and marsh clean up debris typically consists of wood, glass, bottles, cans, plastic, metal, fiber, fabric, cigarette butts, monofilament fishing line, plastic sheeting, tires and Styrofoam.



– Street Sweepings don't meet the definition of inert debris

- Street sweepings are materials such as sand, salt, grit, and organic material removed from city streets, parking lots and sidewalks to prevent these materials from being washed into storm sewers and surface waters, and to improve the appearance of public roadways.
- Inert debris does not contain soluble pollutants at concentration in excess of water quality objectives and do not contain significant quantities of decomposable waste.

Is it ever acceptable to have construction contractor office recyclables mixed with C&D debris?



Choices

- Yes, but only when commingled with C&D debris
- No.

Answer

- Yes, when its commingled with C&D
 - Otherwise, it's transfer processing debris.
 - The C&D definition (D)(2) expressly excludes, commingled office recyclables, commingled commercial solid waste and commingled industrial solid waste.
 - This does not mean that recyclables that are commingled with C&D debris are excluded from being considered to be C&D debris.
 - (Office recyclables = newspapers, other paper, bottle, cans)



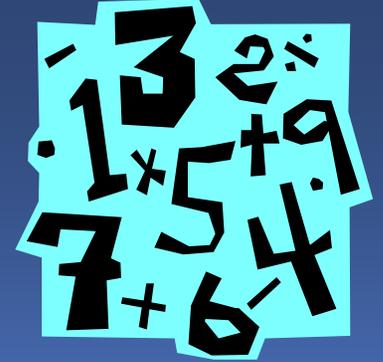
Does source separated material count toward a CDI debris processing facility's total tonnage?



Choices

- Yes, all material through the gate is counted.
- No, source separated material is “girly” debris and doesn’t count towards total tonnage received.

Answer



- Yes, C&D debris and inert debris are specific types of solid waste per section 17380
 - All material received at the site factors into the total tonnage calculation
 - So, everything through the gate counts as tpd.

Do CDI processing facilities have to be identified in the NDFE before the LEA can process the paperwork?



Choices

- No.
- Yes, the NDFE finding is required in the permit application.



Answer

- Yes, the NDFE finding is required in the application for permits, (not for EA notifications).
 - All non-disposal facilities should be listed in the Non Disposal Facility Element
 - then they are subject to the conformance finding requirements,
 - and the LEA can find that the permit application is complete.

What is “C&D Like” and why should I be interested?

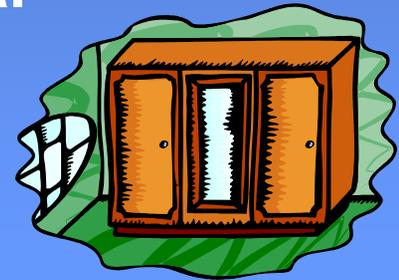


Choices

- “C&D Like” must come from a manufacturer or its not C&D debris.
- “C&D Like” is beach clean-up debris, pallets, street sweeping & Cal Trans roadside pick-up.
- “C&D Like” is self-haul material.

Answer

- **Because if the debris does not come from C&D:**
 - It must be from manufacturing, or generally similar
 - and not produce ANY residual material
 - and NO putrescibles
 - or it can be Wood-overs from cabinet manufacturing



The next slides will show how it could be hard to meet this requirement

Are garage clean-outs C&D debris?



Choices

- Yes, if it is similar to C&D debris.
- No, garage clean-outs are not construction work.

Answer



- Garage clean-outs are usually junk hauls
- The LEA can check to see if the site advertises acceptance of garage clean-out debris.

(Unless the recycling results in no residual material, or the materials came from a home remodeling project.)

What about self-hauls, can they be considered to be C&D loads?



Choices

- No, only if it comes from construction work.
- Yes, if it is “C&D Like”.

Answer

- **Yes**
 - Determine whether the debris come from a C&D site or Home remodel
 - Certainly, a (DIY) home remodel bin is sufficiently akin to C&D if limited to C&D
 - Remember - No General Household Garbage



Do I need an approved Fire Plan for a C&D Debris Processing Facility operating under a Transfer/Processing Permit?



Choices

- No, Article 6.0 does not require a fire plan.
- Yes, if the facility is processing C&D, then a fire plan is required.

Answer

- It is up to the LEA. Article 6.0 does not require a Fire Plan at this time. However, the LEA can require the operator in the Permit to include a Fire Plan or require the Fire Plan be included in the RFI.



Who determines whether multiple activities should be regulated separately or all under one permit?



Choices

- The LEA.
- The CIWMB.
- The Operator.

Answer



- The LEA does

- Pursuant to: Section 17383.1 multiple wood debris chipping and grinding activities.



- LEA Advisory #39 Issuance of Multiple Permits

What material storage time limits do I apply to multiple facilities or activities at one facility?



Choices

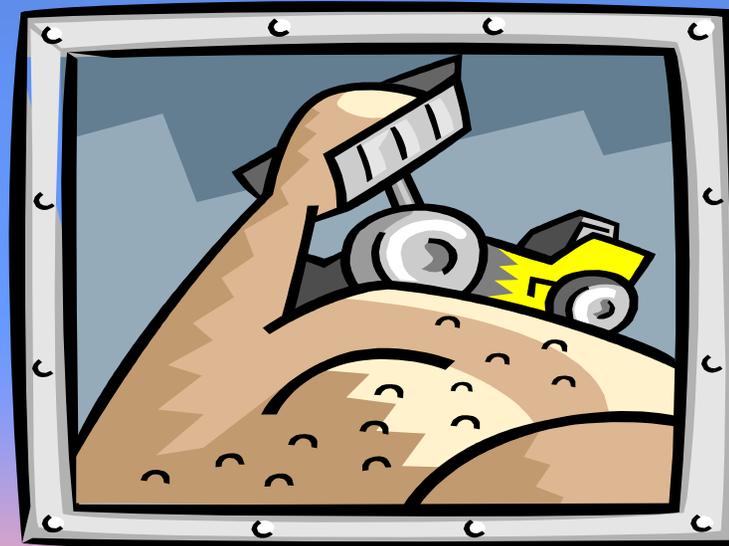
- 15 days for unprocessed material & 12 months for processed material.
- It depends on the debris type.

Answer

- For Commingled Material – CDI debris processing Storage Times of 15 days Unprocessed / 12 mo. Processed Apply
- A Processor with 3 Distinct Debris Streams Should have Storage Times Consistent with the Debris Stream. Such as:
 - Inert Debris -- 6 mos unprocessed / 18 mos processed
 - C&D Wood Debris Chip/Grind -- 30 days unprocessed / 90 days unprocessed
 - Greenwaste Chip/Grind – Within 48 hours of receipt or up to 7 days by EA determination



What is the difference between Inert Debris Recycling Sites and Inert Debris Processing Operations?



Choices

- The tonnage limits.
- The amount of residuals allowed.

Answer

- Inert Debris Processing Operations have over 10% residual waste
- Inert Debris Recycling Sites have under 10% residual waste

Is the Crushing and Grinding of Inert Debris Regulated?



Choices

- Yes, all chipping & grinding activities are regulated.
- No.
- It depends.

Answer

- No, Source separated inert debris can be crushed and ground at a CDI Recycling Center as long as it was not commingled with any other CDI material & has <10% Residual.



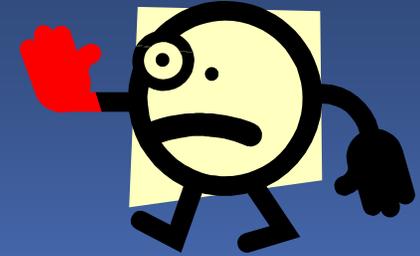
Is Inert Debris Dumped by the Side of the Road Regulated by the C&D Regs?



Choices

- Yes.
- No.
- It depends.

Answer



- It depends:
 - It could be determined to be illegal disposal & destined for clean up, or
 - It could have storage standards of the CDI processing regulations applied.

Material used in construction of roads, etc.
is Excluded from the Regulations

What is Type B Debris?

Isn't it over-kill to regulate some very benign Type B debris in this manner?

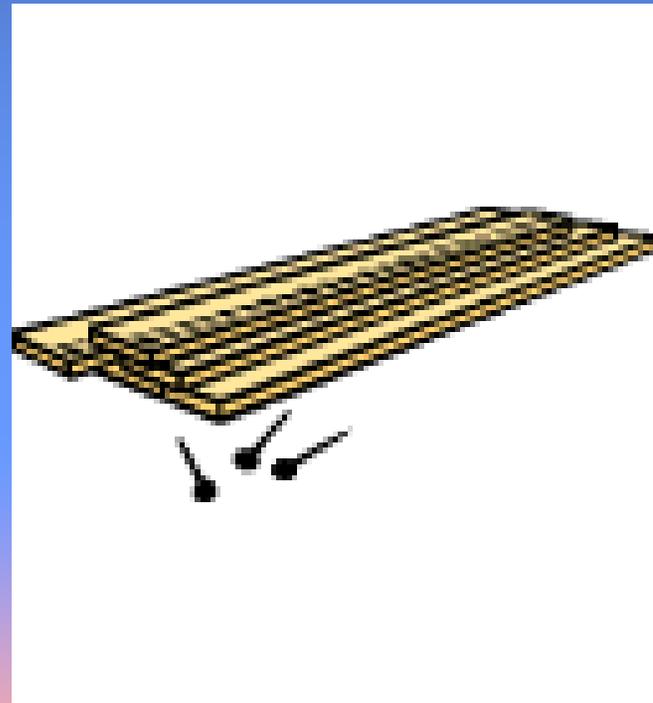
Choices

- Anything that is not Type A and cannot decompose.
- It is waste determined to be inert by the RWQCB.

Answer

- It is waste determined to be inert by the RWQCB but excluded Type A Inert Debris.
- Examples are:
 - Treated industrial wastes
 - De-watered bentonite-based drilling mud
- However, per section 17388(k)(1) The Board, upon consultation with the SWRCB will determine on a case-by-case basis whether materials not listed in the regs qualify as Type A inert debris. The Board with the SWRCB will consider statewide & site-specific factors in making this determination.

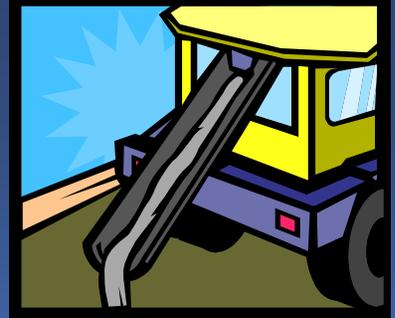
Can an inert debris recycler accept C&D wood if the amount is less than 10% residual per section 17381.1(b)(1)?



Choices

- Yes.
- No.
- It depends.

Answer



- **The Regs state only Type A inert debris can be accepted.**
 - However, wood can inadvertently be commingled with inert debris as in the case of concrete forms thrown into an inert debris bin
 - The Operator has the burden of proof to show that only Type A inert debris is accepted
 - The LEA can assess this on a case-by-case basis taking into consideration the impacts to public health, safety and the environment.

Is mining waste and gangue considered to be inert debris?



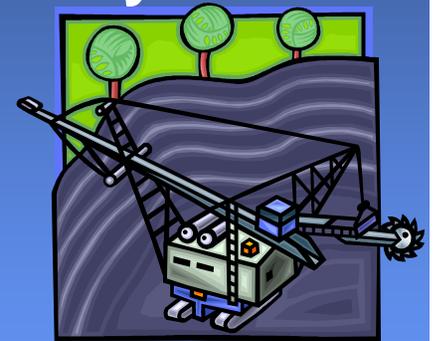
Choices

- Yes.
- No.
- It depends

Answer

Mining waste is separated into three categories by state water board

- ‘A’ as hazardous,
 - ‘B’ as designated, and
 - ‘C’ as inert debris”.
 - Gangue is a subset of mining waste.
- So, If it is determined to be inert, it could be considered Type B debris.



Note: gangue RETURNED to a mine as part of reclamation material sent or received from off-site, could be subject to the regulations.

(Gangue - sand, rock, and other impurities surrounding the mineral of interest in an ore)

**What about Ash –
is it inert debris?**



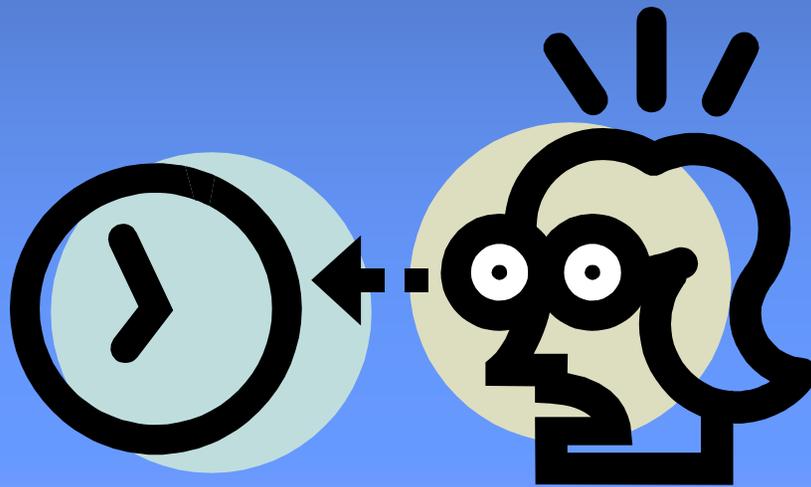
Choices

- Yes.
- No.
- It depends.

Answer

- **Ash is also separated into 3 categories by the State water board**
 - ‘A’ as hazardous,
 - ‘B’ as designated, and
 - ‘C’ as inert debris”.
- **If the ash is determined to be an inert debris by the RWQCB then it would be type B debris & can be regulated under Article 5.8 - nonhazardous ash regs**

**Do sites that recycle inert debris
have to meet storage limits?**



Choices

- Yes, all sites must meet storage standards.
- No, not if the site is a Material Production Facility.



Answer

- **Not if it's a “Material Production Facility”.**
 - Which is- most commonly an aggregate operation,
 - a hot mix asphalt plant, or
 - Portland cement manufacturing facility.

I've heard that inert debris stored at public agencies must meet storage time limits. Is this true?



Choices

- Yes, but the LEA can allow an extension of the storage time limits.
- No, public agencies are exempt from storage time limits.

Answer



–But, the LEA can allow an extension of the Storage Time Limits.



What possible hazards may exist in C&D debris?



Aerosol Cans - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, section 17409.5

Asbestos - Pre-demolition phase removal, DIR/DOSH (Cal OSHA); Hazardous, Liquid, and Special Wastes, T14 section 17407.5;

Batteries - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, section 17409.5

Caulking Tubes - Partially Spent - Load Checking, section 17409.5

E-Waste - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, section 17409.5; DTSC

Florescent Light Tubes - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, section 17409.5; DTSC

Lead Based Painted Wood - Load Checking, T14 section 17409.5

Mercury Switches - Load Checking, T14 section 17409.5; DIR/DOSH (Cal OSHA) Safety Req

Mold - DIR/DOSH (Cal OSHA) Safety Requirements

Paint Residue in Containers - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, T14 section 17409.5

PCB Capacitors - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, T14 section 17409.5; DIR/DOSH (Cal OSHA) Safety Requirements

Silica Dust - Dust Control, T14 section 17407.4; Hazardous, Liquid, and Special Wastes, T14 section 17407.5; DIR/DOSH (Cal OSHA) Safety Requirements

Synthetic (airborne) Mineral Fibers - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; DIR/DOSH (Cal OSHA) Safety Requirements

Treated Wood (CCA) - Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, T14 section 17409.5' DTSC

Hazardous Materials - Contractor Recycling or DTSC - also Hazardous, Liquid, and Special Wastes, T14 section 17407.5; Load Checking, T14 section 17409.5; DIR/DOSH (Cal OSHA)

Aren't there health and environmental impacts associated with the grinding of lead painted wood and concrete?



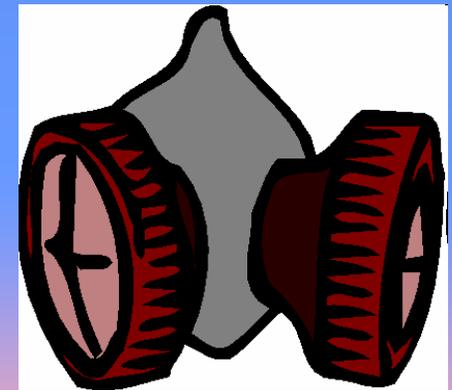
Choices

- Yes, but if it is hazardous it should not be ground.
- No, the solution is dilution.
- Yes, all painted concrete should be prevented from acceptance @ a processing facility.

Answer

- **Yes, but hazardous materials must NOT be accepted at a SWF**
 - & must be prevented through signage, customer education & Load Checking, or
 - If discovered, it must be separated from other debris

Should we be Concerned with Friable Asbestos at C&D Processing Sites?



Choices

- Yes, some non-friable asbestos could become friable if handled incorrectly.
- No, local procedures always ensure that asbestos doesn't enter processing facilities.
- Yes, some self-haul material may have slipped under the wire.

Answer

- **Yes, Again - Hazardous materials must NOT be accepted at a SWF and**
 - It must be prevented from receipt through signage and customer education & Load Checking
 - But, If discovered, must be separated from other debris, and
 - Removed by Asbestos Abatement Contractors

Non-Friable Asbestos can become Friable with handling

C&D WOOD DEBRIS CHIPPING & GRINDING OPERATIONS & FACILITIES



- What are the Main Differences Between the C&D Chip & Grind Regulations & the Compostable Materials Chip & Grind Regulations?



Choices

- The C&D regs do not allow compostable material.
- The compostable material regs do not allow other C&D material like asphalt roofing shingles.
- None, both can be used interchangeably.

Could C&D wood debris chipping and grinding require application of the Compostable Materials requirements?



Choices

- Yes, if it generates temperatures of at least 122 degrees Fahrenheit.
- No C&D wood is too dry.
- Yes, the regulations are interchangeable.

Answer



- Yes
 - If it generates temperatures of at least 122 degrees Fahrenheit.
 - If this is the case, it's Regulated as a compostable material handling operation or facility, per Chapter 3.1

Is pallet grinding a regulated activity by the LEA?



Choices

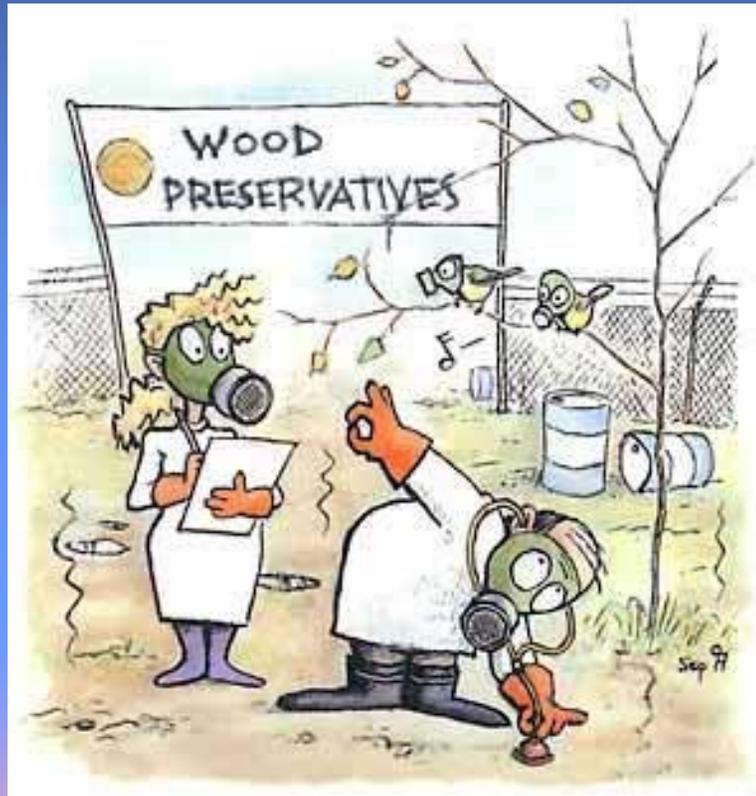
- Yes.
- No, pallets aren't C&D!
- Yes, but only if the end product is C&D mulch.

Answer



–If it is making Wood Mulch as defined in the C&D wood debris chipping and grinding requirements.

What commonly sold wood must never be received at a C&D site?



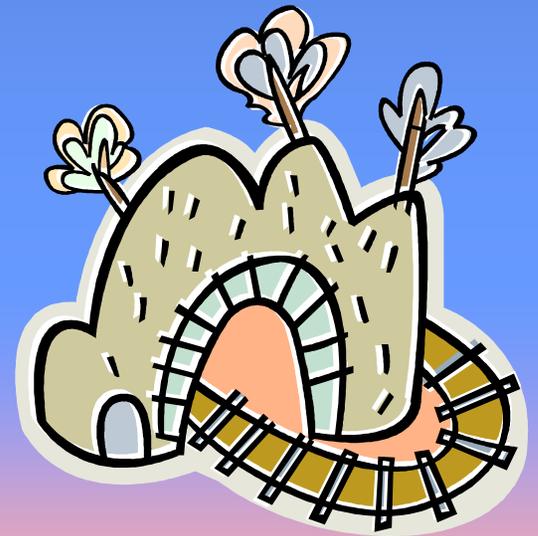
Choices

- Oak
- CCA Treated Wood
- Any kind of wood can be received at a C&D processing site.

Answer

- **Chromated copper arsenate (CCA)**
 - Section 17383.3. (c)(4) states that the operator shall take adequate measures through signage, training, load checking, detection systems, and/or chemical analysis to avoid incorporating any CCA pressure treated wood and lead based painted materials into C&D mulch. Such contaminated feedstock shall be stored in a designated area for proper handling and disposition.

Can creosote treated railroad ties be chipped and ground for C&D mulch?

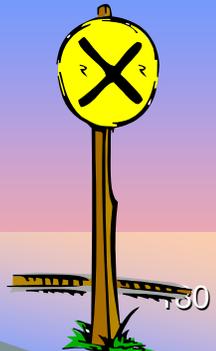


Choices

- No, not according to AB 1353.
- Yes, creosote treated railroad ties aren't hazardous.
- Yes, creosote is an organic substance made from the *Larrea tridentata* bush.

Answer

- No, According to recent legislation, creosote treated railroad ties can be considered to be hazardous waste when used in certain circumstances.

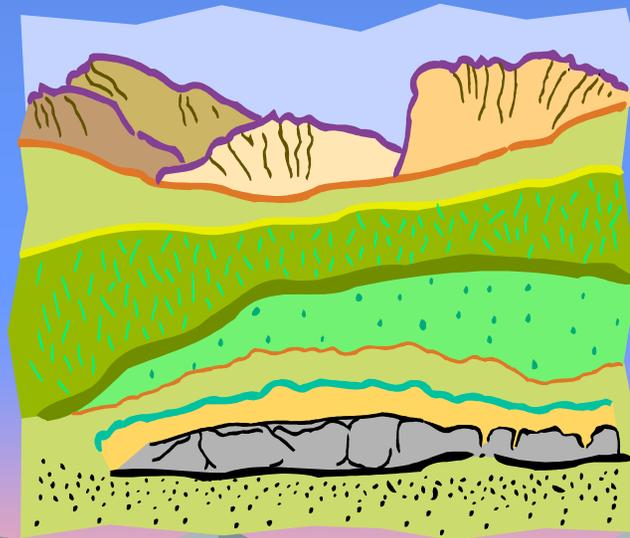


What's Next?



- 2003 Waste Characterization Study Presentation at the February 2005 Sustainability Committee
- C&D Debris Reuse & Recycling Survey presented at the March 2005 Sustainability Committee Mtg & Board Meeting
- 2005 Waste Characterization Study

C&D Debris Disposal Regulations 101



Chapters

- **1 Background & Inert Debris Characteristics**
- **2 The Regulations**
- **3 Q & A**

Chapter 1

Phase II Disposal Regulations

- Board approval on
September 17, 2003
- Approved by OAL on
December 26, 2003
- 60 day delay in implementation
- Effective Date In February 24, 2004



Inert Debris Characteristics

- "Inert Debris" means solid waste and recyclable materials that are source separated or separated for reuse and do not contain hazardous waste (as defined in CCR, Title 22, section 66261.3 et. seq.) or soluble pollutants at concentrations in excess of applicable water quality. Inert debris may not contain any putrescible wastes. Gravel, rock, soil, sand and similar materials, whether processed or not, that have never been used in connection with any structure, development, grading or other similar human purpose, or that are uncontaminated, are not inert debris. Such materials may be commingled with inert debris.

Inert Debris Type A

- "Type A Inert debris" includes but is not limited to concrete (including fiberglass or steel reinforcing bar embedded in the concrete), fully cured asphalt, crushed glass, fiberglass, asphalt or fiberglass roofing shingles, brick, slag, ceramics, plaster, clay and clay products. Type A inert debris is waste that does not contain soluble pollutants at concentrations in excess of water quality objectives and has not been treated in order to reduce pollutants. The board, upon consultation with the State Water Resources Control Board, will determine on a case by case basis whether materials not listed in this subdivision qualify as Type A inert debris. The board and the State Water Resources Control Board may consider statewide and site-specific factors in making this determination.

Inert Debris Type B

- "Type B inert debris" is solid waste that is specifically determined to be inert by the applicable RWQCB, such as treated industrial wastes and de-watered bentonite-based drilling mud, but excluding Type A inert debris.

Phase II Tier Placement

- Inert Debris Engineered Fill Operation = EA Notification
- Inert Debris Type A Disposal Facility = Registration Tier
- C&D/Inert Debris Type B Disposal Facility = Full Permit Tier





Chapter 2 – The Regulations

Inert Debris Engineered Fill Operations

EA Notification

Certified Engineer

No CIWMB Fees

No DRS Reporting

No Tonnage Limit

Quarterly/Annual Inspections

Limited Closure & No Postclosure Maintenance Requirements

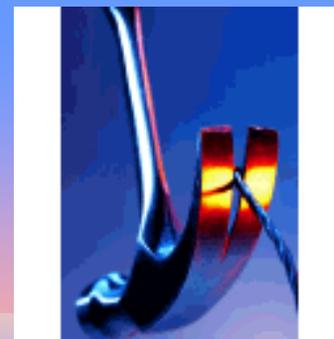
No Financial Assurance Requirements

State Minimum Standards Apply (except gas and fire).

Operation Plan is Required

Must demonstrate a productive end use

Tests: Must meet Test Parts 1, 2 & no Putrescibles



Inert Type A Debris Disposal Facility

Registration Tier

CIWMB Fees

Monthly Inspections

Disposal Reporting

Closure & Postclosure Maintenance Requirements

Financial Assurance Requirements

State Minimum Standards Apply

Facility Plan is Required

Does not need to demonstrate a productive end use

Tests: Must meet Test Parts 1 & No Putrescibles



CDI Disposal Facility

Full Permit Tier

CIWMB Fees

Monthly Inspections

Disposal Reporting

Closure & Postclosure Maintenance Requirements

Financial Assurance Requirements

State Minimum Standards Apply

Facility Report is Required

Does not need to demonstrate a productive end use

Tests: None



Chapter 3

Questions & Answers

Is the $< 1\%$ residual amount at an inert debris engineered fill (IDEF) operation by weight or volume?

Choices

- Weight
- Volume
- No residual material is allowed for placement at an IDEF operation.

Answer

- No amount of residual material or putrescible material is allowed for placement at an IDEF.

Is there a limit on the amount of TPD that can be placed at an IDEF operation?

Choices

- Yes, 1500 TPD
- No

Answer

- No.
- Section 17388.3 does not limit the max daily tonnage for an IDEF operation.
- The operator must comply with all peak tonnages in permits from other agencies.
- The Operations Plan required by section 17390(g) requires the operator to include information re: the types & daily quantities of waste or debris to be received.

What is the difference between C&D debris and inert debris – aren't they the same?

Choices

- Yes, if it is called “CDI”.
- Yes the terms can be used interchangeably.
- No, not in these regulations.

Answer

- No, not in these regulations.
- Inert debris can come from any source whereas C&D debris comes only from C&D sites.
- Also, inert debris does not contain materials that are compostable or degradable.

Why aren't IDEF operations allowed to accept all Inert Type A debris?

Choices

- They can!
- Because asphalt shingles and plastics could burn or degrade water quality in some instances.

Answer

- Because some plastics are degradable and some Type A inert debris have a BTU value to them and can burn.
- So, although the SWRCB may consider all Type A debris to be inert, the CIWMB considers combustibility issues with disposal of this material and only allows a subset of Type A debris:
 - fully cured asphalt, uncontaminated concrete, crushed glass, brick, ceramics, clay & clay products which may be mixed with rock and soil.

Does Subsection 17388.2(a)(6)
Exclusion For Use By
Government Agencies apply to
operators that accept and dispose
of inert debris from various
government projects?

Choices

- No, this subsection only excludes the “use” of inert debris in connection with road building.
- Yes, it’s excluded because the debris is generated by the government.

Answer

- No, this subsection only excludes the “use” of inert debris in “connection” with road building/repair bridge & roadway work, levee work, & flood control projects by government agencies.
- An LEA should not use this section to exclude disposal operations because the material is generated by a government agency.

Contact

Allison Spreadborough – (916) 341-6366

aspreadb@ciwmb.ca.gov

