

NR 700  
RULE  
UPDATE



WELCOME TO THE  
NR 700 REVISIONS  
WEBINAR

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October 9  
2013

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NR 700 REVISIONS WEBINAR

- 1:00 – 3:00 pm
- You must call WisLine for audio. 1-888-291-0312 (passcode: 5155 216#)
- Please MUTE your telephone (\*6) (#6 to unmute)
- Download presentation at <http://dnr.wi.gov/topic/brownfields/training.html>
- Questions via Live Meeting "Q & A" feature or email Michael.Prager@wisconsin.gov

Webinar Instructions 2 

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NR 718 – MANAGEMENT OF  
CONTAMINATED SOIL OR SOLID  
WASTES DURING RESPONSE ACTIONS

Mark Gordon  
Bureau for Remediation and Redevelopment

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### SUMMARY OF NR 718 CHANGES

- The process set out in NR 718 is being simplified.
- Sections NR 718.11, 718.13 and 718.14 are being consolidated into 1 section.
- NR 718.12(1) covers those situations where DNR approval is generally not needed.
- NR 718.12(2) specifies when DNR approval must be obtained up front.

NR 718 Update

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### NR 718.12(1)

- This paragraph covers situations where DNR approval typically is not needed in order to manage contaminated soil.
- It applies to immediate actions being taken under NR 708 or where unexpected contamination is discovered as part of utility or construction work.
- DNR approval is needed if an exemption to the locational criteria or a modification of the sampling provisions is requested.

NR 718 Update

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### NR 718.12(2)

- This paragraph specifies the criteria that need to be met when contaminated soil is managed as part of an interim action or remedial action.
- A soil management plan needs to be approved by DNR prior to initiating the work.
- Contaminated soil can be managed at locations other than the property where it was excavated provided the necessary environmental protections are included.

NR 718 Update

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**NR 718.12(2) CONTINUED**

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- If the action will result in the need for a continuing obligation, written notification must be provided at least 30 days prior to submitting the soil management plan.
- Site or facilities with continuing obligations will be included on the Department's database.
- The appropriate fee for adding the site to the database must be submitted.

NR 718 Update 7 

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**NR 718 – IMPLEMENTATION ISSUES**

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- NR 718 provides broad authority to address contaminated soil as part of a response action.
- Response actions include any action taken to respond to a hazardous substance discharge or to environmental pollution.
- DNR is developing guidance to help clarify the options for managing contaminated soil and waste materials at construction and utility projects.

NR 718 Update 8 

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**QUESTIONS?**

Questions via Live Meeting "Q & A" feature  
or email [Michael.Praeger@wisconsin.gov](mailto:Michael.Praeger@wisconsin.gov)

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NR 700  
RULE  
UPDATE

NR 720 - SOIL CLEANUP  
STANDARDS

USING RR'S RCL  
SPREADSHEET

Resty Pelayo  
Bureau for Remediation & Redevelopment



October 9  
2013

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WHAT'S CHANGED IN NR 720

- Removed Tables 1 & 2.
- Removed the GRO and DRO standards.
- No longer the Preventive Action Limit (PAL), but rather the Enforcement Standard (ES) when calculating soil standards protective of groundwater.
- The actual land use will determine the appropriate land use classification.

NR 720 Update  11

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WHAT'S CHANGED IN NR 720 (p. 2)

- Language has been included that averaging soil sampling results may be appropriate.
  1. This was the topic of much discussion with our external advisory committee.
  2. General language recommends seeking DNR approval of the method prior to implementation.
  3. A note was added indicating that averaging not be the sole method for addressing areas with significant soil contamination.
  4. An example using UCL for mean of concentrations is in the guidance document referenced in the code.

NR 720 Update  12

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### WHAT'S CHANGED IN NR 720 (p. 3)

- RCL Process is still in place. Now, the soil exposure defaults will be same as EPA's.
- As replacement to the tables in the rule, DNR has developed a spreadsheet with RCLs.
- The spreadsheet will have individual RCLs. Also, it will determine the cumulative hazard index (HI) and the cumulative cancer risk (CR).




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### WHERE TO LOOK NOW

Old	New	
720.09	Now Gone	<del>Petroleum Contamination (Table 1, DRO, GRO)</del>
720.11(1)	720.05(5)	Land Use Classification
720.11(2)	Now Gone	<del>Generic RCLs in old Table 2</del>
720.11(5)(b)	720.07(3)	Background Concentration
720.19(2)	720.08	Performance Standards
720.19(4)	720.10	RCL for Protection of Groundwater
720.19(5)	720.12	RCL for Protection from Direct Contact

NR 720 Update




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SOIL RESIDUAL CONTAMINANT LEVEL DETERMINATIONS  
 USING THE U.S. EPA REGIONAL SCREENING LEVEL  
 WEB CALCULATOR

PUB-RR-890 June 20, 2013

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Steps in Using the US EPA's Regional Screening Level Web Calculator to Get Wisconsin Soil RCLs

1. Select Residuum

2. Select Soil

3. Choose "Site Specific"

7. Select Chicago, IL

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**Industrial D-C RCLs**

1. Composite Worker

2. Soil

3. Site Specific

4. Chronic

5. Chemicals

6. Retrieve

7. Select "Chicago, IL" in both PEF and VF sections

8. "Retrieve"

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### DC RCLs AND RSL WEB-CALCULATOR

- Web-calculator allows us to determine individual soil direct-contact (DC) RCL
- With multiple contaminants, our concerns:
  - Individual exceedance, and
  - Cumulative exceedance
- *So we still need: A separate cumulative evaluation*



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### RR PROGRAM'S SPREADSHEET OF RCLs

- The RCLs are the results from the RSL web-calculator
- Given soil data, the spreadsheet tallies individual and cumulative exceedances



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**Groundwater-protective RCLs**

1. Soil to Groundwater
2. Defaults
3. Chronic
4. Select Chemicals.
5. Retrieve

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## WEB-CALCULATOR SOIL-TO-GW SCENARIO

- Web-calculator does not know NR 140 ES!
- Web-calculator uses risk-based water concentrations and MCLs in its calculations.
- Easy to make adjustments, so the GW-RCLs in the spreadsheet are ES-based soil levels.
- We also use a default dilution factor of 2 for the GW-RCLs in the spreadsheet.

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## Typically, GW-RCL << DC-RCL

NR140 Substance	Fed MCL (ug/l)	NR 140 ES (ug/l)	RCL-gw (mg/kg) DF=1	INPUT NUMERIC SOIL Site Data (mg/kg)
1 Acetochlor	34258-62-1	7	0.0056	0.0112
2 Acetone	67-64-1	9,000	1.847	3.6939
4 Acetophenone	100-06-1	2	0.0017	0.0033
5 Aldicarb	116-06-3	3	0.0025	0.005
6 Aluminum	7429-90-5	200	200.6482	601.2923
7 Antimony	7440-36-0	6	0.271	0.542
8 Anthracene	120-12-7	3,000	98.3721	196.7442
9 Arsenic	7440-38-2	10	0.292	0.584
10 Benzene	1912-11-9	3	0.002	0.0039
11 Bismuth	7440-35-3	2,000	82.4	164.8
12 Benzazon	20557-89-0	300	0.0659	0.1319
13 Benzene	74-82-6	5	0.0026	0.0051
14 Toluene	108-88-3	1,000	0.3536	1.1972
15 Toluene	8001-35-2	3	0.454	0.908
16 1,1,1-Trichloroethane	100-62-1	70	0.204	0.408
17 1,1,1-Trichloroethane	71-65-6	200	0.3701	0.7402
18 1,1,2-Trichloroethane	79-00-6	5	0.0016	0.0032
19 Trichloroethylene (TCE)	79-11-6	6	0.0018	0.0036
20 Trichloroethylene (TCE)	83-72-1	50	0.0275	0.055
21 1,1,1-Trichloroethane	36-23-5	60	0.026	0.052
22 Trifluoroethane	15582-08-0	7.5	0.2477	0.4954
23 Trifluoroethane	86424-98-0	480	0.6897	1.3793
24 Trifluoroethane	7448-85-2			

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## SUMMARY

- US EPA RSL web-calculator is used to generate DC and GW-protective RCLs for individual contaminants
- Given soil boring data, the RR Program's RCL spreadsheet can be used to evaluate individual and cumulative exceedance
- Groundwater data need to be separately assessed




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Web-Calculator / RCL Spreadsheet Resource Staff Available for More Questions	
Doug Joseph, WCR	<i>doug.joseph@</i>
Chris Saari, NOR	<i>christopher.saari@</i>
Kathy Sylvester, NER	<i>kathy.sylvester@</i>
Mae Willkom, WCR	<i>mae.willkom@</i>
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## QUESTIONS?

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or email [Michael.Praeger@wisconsin.gov](mailto:Michael.Praeger@wisconsin.gov)

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## NR 700 REVISIONS

- Next Webinar: Wednesday, October 16, 2013
- 1:00 – 3:00 pm
- Chapters: 708, 722, 724
- Presenters: Mark Gordon, Jane Lemcke, Dan Kolberg, Tom Coogan
- Presentations available at <http://dnr.wi.gov/topic/brownfields/training.html>
- Questions after today can be emailed to [DNRRRComments@wisconsin.gov](mailto:DNRRRComments@wisconsin.gov)

Next Webinar

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