

Workshop on Proposed Compliance Offset Protocol for Rice Cultivation Projects and Updates to Existing Protocols

California Air Resources Board

June 20, 2014

California Air Resources Board
Staff Proposal for Discussion

Workshop Materials and Comments Submittal

- Presentation and protocol discussion drafts are posted at:
<http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>
- Written comments may be submitted at:
<http://www.arb.ca.gov/cc/capandtrade/meetings/meetings.htm>
by midnight, June 30, 2014 (PDT)
- During the workshop, E-mail questions to:
auditorium@calepa.ca.gov

Agenda

- Offset Program Status Update
- Verification Training/Accreditation Update
- Proposed Updates to The Existing Protocols—
Livestock Projects, Mine Methane Capture Projects,
Ozone Depleting Substances (ODS) Destruction
Projects and US Forest Projects
- New Proposed Protocol Development—Rice
Cultivation Protocol
- Timeline
- CEQA

Offset Credit Issuance Update

- 4,344,158 ARB offset credits issued to Compliance Offset Projects
- 6,602,801 ARB offset credits issued to Early Action Offset Projects
- Total of 56 Early Action and Compliance Offset Projects credited

Verifier Training Update

- Eight training sessions held since June 2012 with attendance by:
 - 108 verifiers seeking accreditation
 - 31 Offset Project Registry (OPR) staff
 - 8 offset project operators/consultants
- Most recent training held first week of June 2014 included 24 participants in the MMC training
- Future trainings:
 - Possible – December 2014 in Sacramento
 - For more information, see:
<http://www.arb.ca.gov/cc/capandtrade/offsets/verification/verification.htm>

Verifier Accreditation Update

- 18 Verification Bodies accredited
- 94 Offset Verifiers accredited
 - 78 Lead verifiers
 - 43 Livestock project specialists
 - 35 US Forest project specialists
 - 34 ODS Destruction project specialists
 - 31 Urban Forest project specialists
- For more information, see:

<http://www.arb.ca.gov/cc/capandtrade/offsets/verification/verification.htm>

Questions?

Proposed Updates to the Existing Protocols

- The Livestock, ODS and U.S. Forest protocols are being updated to:
 - Correct errors and typos
 - Reflect the latest data used for quantification
 - Provide clarifications
- Mine Methane Capture protocol
 - Minor clarification on abandoned mine additionality
- Upon the adoption of the proposed updates:
 - Future projects must use the updated protocols.
 - Existing project may use the updated protocols continuing the existing crediting period.
 - Existing projects may continue to use the previous version

Proposed Updates to the ODS Destruction Protocol

Quantitative Corrections and Updates

- Clarify where high boiling residue (HBR), moisture, and ineligible ODS are included and excluded in calculations
- Correct carbon ratios and percent/fraction discrepancy
- Specify the pound/metric ton conversion factor
- Allow for ASTM method (instead of only “Scheutz” method) for analysis of ODS foam blowing agent
- Add a conservative accounting method for ineligible ODS after destruction

Proposed Updates to the ODS Destruction Protocol

Administrative and Regulatory Clarifications

- Convert explanatory text to regulatory format
 - Explanatory text removed
 - Some text shifted between chapters and appendices
- Add/remove some definitions and acronyms
- Clarify eligibility and regulatory compliance requirements
- Clarify descriptions of offset project commencement, reporting period, and crediting period

Questions?

Proposed Updates to the U.S. Forest Protocol

Quantitative Corrections and Updates

- Update conversion factors and clarify formulas and references for greater accuracy and consistency
- Add standing dead tree carbon pool adjustment (Domke et al 2011)
- Update Common Practice (CP) values
- Require summary tables by stratum and percent for each carbon pool (standing live, standing dead, above and below ground) for verification ease
- Consider expanding protocol to Alaska

Proposed Updates to the U.S. Forest Protocol

Administrative and Regulatory Clarifications

- Section 3.8.1 Sustainable Harvesting:
 - Clarify that Section 3.8.1 (certification, long term management options 1 & 2) requires the landholder to meet and apply the requirement to all landholdings throughout the US using Options 1, 2, or 3.
 - Clarify that the Uneven-Aged Management (Option 3) requirement applies to the project's Assessment Area, not to all landholdings, and that the “all landholdings” requirement may be met using Options 1, 2, or 3.
- Clarify steps for harvested wood product (HWP)
- Clarify sequential sampling process

Questions?

Proposed Updates to the Livestock Digester Protocol

Quantitative Corrections and Updates

- Update equations to ensure consistent formatting and fix typos
- Update emission factors and other values
- Update volatile solids (VS) and typical animal mass (TAM) values
- Set maximum value for Van't Hoff-Arrhenius factor to 0.95
- Clarify baseline data substitution methodology for missing data durations greater than one week

Proposed Updates to the Livestock Digester Protocol

Administrative and Regulatory Clarifications

- Convert explanatory text to regulatory format
 - Explanatory text removed
 - Some text shifted between chapters and appendices
- Clarify project listing date
- Clarify digester-type and cover-type categories
- Update protocol definitions and abbreviations

Proposed Updates to the Livestock Digester Protocol Implementation Clarifications and Updates

- Modify monitoring requirement for destruction devices
- Update equations to prorate emission reductions for incomplete calendar months

Questions?

New Protocol Development

Rice Cultivation Projects

- Rice cultivation protocol is intended to reduce methane emissions from traditional rice cultivation practices
- Methane (CH₄) facts:
 - Relatively large radiative efficiency
 - Second most important anthropogenic greenhouse gas (GHG) in atmosphere
 - Short-lived climate pollutant
 - Controlling methane has co-benefit of reducing global ozone concentrations
 - With new IPCC GWP reductions in methane will have greater benefits

Major Changes from Initial Draft

- Clarify soil moisture sampling requirements
- Clarify reporting period requirements
- Update the 16-run Monte Carlo simulation approach for GHG emissions quantification
- Update structure uncertainty methodology
- Update Monitoring Parameters table
- Clarify documentation requirements
- Clarify verification requirements
- Clarify record requirements for baseline period

Discussions and Clarifications

- How is a fallow year treated in the program?
- What is ARB's strategy in addressing DNDC model uncertainty for each rice growing region?

How is a fallow year treated in the program?

- Fallow year during baseline period
 - Need to identify whether a fallow year is part of the cultivation cycle
 - Data entered into the DNDC model accordingly
- Fallow year during project crediting period
 - Counted as a reporting period, need to submit an OPDR
 - Fallow year must be entered into the DNDC model accurately and be verified so in the next verification

How is ARB addressing DNDC structure uncertainty?

- Each rice growing region or sub-region has its own uncertainty deduction factor
 - Only variable is number of hectares by region
- ARB publishes hectares in each region annually based on protocol participation
 - Preliminary OPDR submitted within 4 months of end of reporting period
 - Complete OPDR submitted after ARB publishing hectares
 - Verification complete within 8 months of ARB publishing hectares

Managing Project Costs

- The first reporting period may include two cultivation years.
- Small projects (<25,000 MTCO₂e) may defer verification to include two rice years
- Authorized Project Designee (APD) may group together multiple projects for economy of scale when negotiating project cost
- Alternative method to simplify quantification of primary emission reductions (reduce computer run time from 13-14 hours/field to 1 hour/field)
- ARB contract for developing tool to simplify reporting and use of DNDC model

ARB Contract Quantification Tool

- Contract being reviewed by DGS
- Easy compliance with record keeping and quantification requirements
- Simplify data input
- Project quantification calculator
- Project record keeping file

Verification

- First proposed compliance offset protocol to rely entirely on modeled calculations not tied to direct measurement
- More specifications are added to current proposal
- Verification focuses on confirmation of project activity
 - Staff continues to seek input from verifiers on process

Protocol Timeline

- Discussion draft protocols for public comment: March and June 2014
- Informal comment period: June 20-29, 2014
- Release 45-Day Comment protocols: July 29, 2014
- 45-Day Comment period opens: August 1, 2014
- Board consideration: September 2014
- If approved, expected effective date: Jan 1, 2015

Environmental Analysis

- ARB prepares an Environmental Analysis (EA) for proposed actions which may result in significant impacts on the environment.
 - Prepared according to requirements of ARB's certified program under the California Environmental Quality Act (CEQA)
- The EA will be an Appendix to the Staff Report
- A **CEQA checklist** is used to identify and evaluate potential impacts to the environment.

Environmental Analysis

- The EA will include:
 - Beneficial Impacts
 - Foreseeable Methods of Compliance
 - Potential for Adverse Impacts
 - Feasible Mitigation Measures or Alternatives
- We welcome your input on the **appropriate scope and content** of the EA as it's developed
 - Foreseeable Methods of Compliance
 - Potential for Adverse Impacts
 - Feasible Mitigation Measures and Alternatives
- **Formal comment period for the EA begins** when the Staff Report is released with the 45-day proposed regulatory action notice

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